The Yachtsmen's Magazine

MOTOR BOATING

1929

35 Cents

IRON

to Take it's place comes

BOHNALITE

62% Lighter than Iron

Iron is an age old metal and like many other substances used down through the centuries is going more and more out of use. This is due to the development of newer metals which have all the advantages of iron but none of its disadvantages.

Foremost among these newer alloys is Bohnalite.

The value of Bohnalite is twofold. Its use not only reduces the weight of your product, but it likewise increases its attractiveness and usefulness.

Manufacturers prefer Bohnalite because of its high uniform hardness — great density — fine grained structure — exceptional strength — excellent bearing qualities — ductility and lightness.

Many of these important refinements are due to the special processes and series of heat treatments developed by Bohn metallurgists over a long period of years.

We have ready a new book about Bohnalite which explains and illustrates the wide use of this new light alloy which is so rapidly replacing iron and other heavy metals. Send for a copy today.

BOHN ALUMINUM & BRASS CORP.
DETROIT, MICH.

New York Chicago Philadelphia Cleveland Pittsburgh

Major Segrave says of . . .

The SEA-HORSES

"They are marvels of engineering skill—their power and speed are truly amazing. I predict the Sea-Horses will revolutionize the sport of outboard motoring—particularly since they eliminate the old outboard motor starting problem and the bothersome racket and gases of the exhaust."

H. O. D. Segrave

The above statement by Major H. O. D. Segrave, holder of the world's automobile speed record of 231.36 miles an hour and winner of the World's Championship Speed Boat Classic held at the Miami Beach Regatta, March 20, was made after he had witnessed the remarkable showing of the Sea-Horses in the outboard events.

In these events Sea-Horse speed and Sea-Horse stamina vanquished all contenders for the most coveted prize in outboard motordom—the famous Col. E. H. R. Green Free-for-all Trophy. The Sea-Horse 32 not only won first and second places in this event but followed up—in rough water—with an official American Time Trial Record of 43.76 m.p.h! See your dealer for a demonstration. 6 Sea-Horse models. Sold on free trial and easy payment plan. Write for Catalog.

Sea-Horse 32
Four Cylinders

JOHNSON MOTOR COMPANY
3083 Pershing Road, Waukegan, Ill.
In Canada: Canadian Johnson Motor Co., Ltd.
Peterborough, Ontario
Distributors for British Columbia, Hoffar's, Ltd.
Vancouver, B. C.

Winner Col. E. H. R. Green Trophy—Miami Beach, March 20
—1st and 2nd places

43.76 M. P. H. Official American Record—Time Trial
Class D—Miami Beach, March 23

Johnson
Outboard Motors

WORLD'S LARGEST MANUFACTURER OF OUTBOARD MOTORS

Motor Boating, May, 1929. Volume XLIII, No. 5. Published monthly at 57th Street at Eighth Ave., N. Y., U. S. A., by International Magazine Co., Inc. Yearly subscription price; United States, $3.00; Canada, $3.00; Foreign $4.00. Entered as second-class matter April 15, 1925, at the Post Office at New York, under the act of March 3, 1879. (Printed in U. S. A.)

I'm too old to use anything but the BEST!

On your boat!—

as on "Winners"... Edward Smith's

YACHT WHITE

For generations the world's finest yachts . . . America's famous Cup Defenders . . . and "Winners" in every important class . . . have flashed over their courses gleamingly beautiful in coats of EDWARD SMITH'S YACHT WHITE, the leader of a line which has enjoyed the confidence of informed yachtsmen since 1827. More brilliantly WHITE than an arctic landscape . . . it does not turn yellow in Southern waters . . . and it has the least tendency to show laps when the hull is retouched. Made from none but pure HARD FOSSIL GUMS and finest pigments. Quick drying and most economical. Send for literature and color charts on Edward Smith products for every marine purpose.

E D W A R D

SMITH

& COMPANY

Makers of Marine Paints and Varnishes since 1827

Long Island City

New York

BOTTOM GREEN · DECK BUFF · AQUATITE SPAR · SPAR COATING

There's a Smith Paint and Varnish for every Marine Purpose

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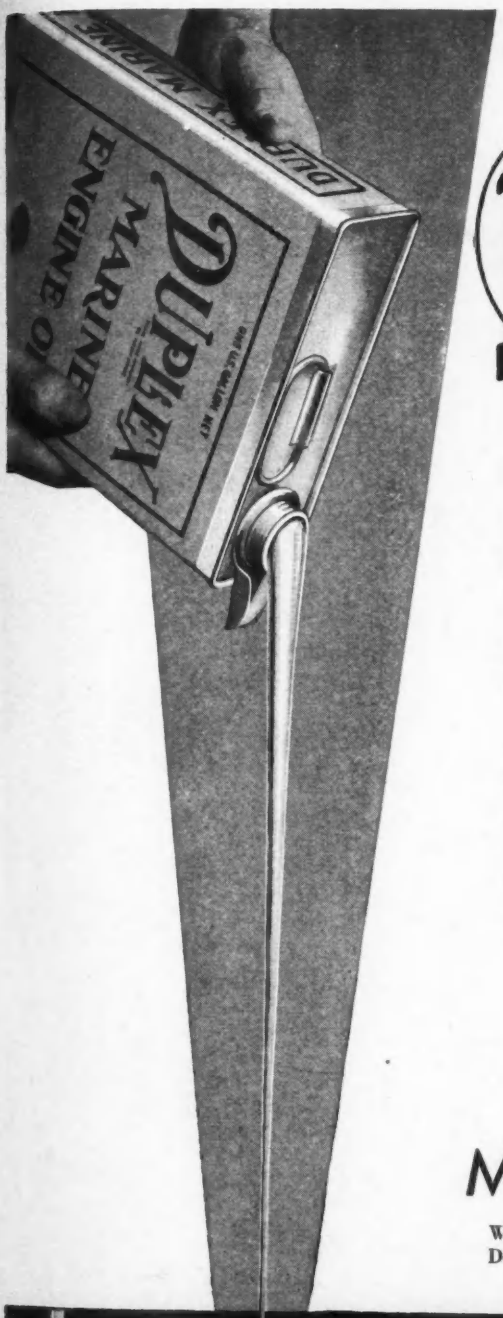


Universal

Standardize on Duplex

Every Universal engine—like every Kermath engine and every Scripps engine—carries instructions to use the world's finest marine lubricant—Duplex Marine Engine Oil.

Duplex is the standard of the marine world. It is specified by Chris-Craft, Gar Wood, Matthews and 29 other builders of fine standardized boats.

And in addition—Duplex is the unquestioned choice of racing drivers—it holds virtually every world's record, including the outboard records.

It has world-wide distribution.

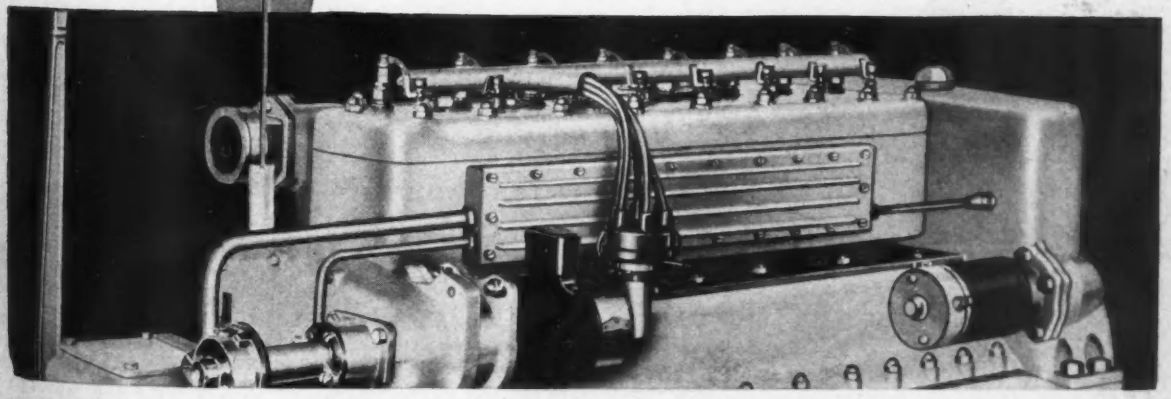
ENTERPRISE OIL COMPANY, INC.

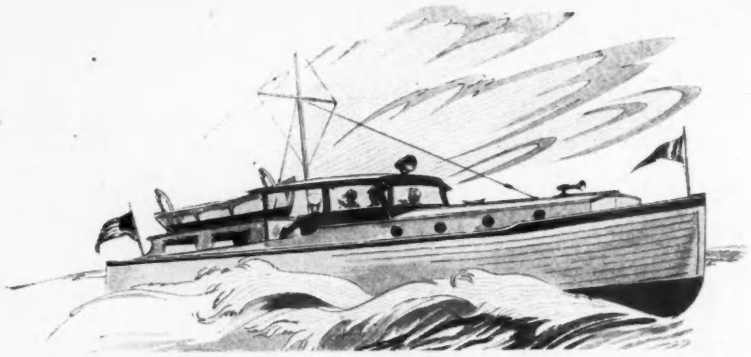
Established 1884

BUFFALO, NEW YORK

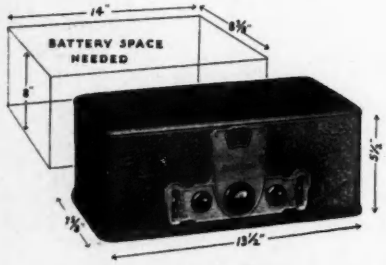
DUPLEX MARINE ENGINE OIL

Wholesale District Distributors in New York, Boston, Philadelphia, Cleveland, Detroit, Chicago, St. Louis, Vancouver, San Francisco, Wilmington (Calif.), Houston, Miami and Palm Beach. Dealers wherever boats float.





CROSLEY RADIO
FOR MOTOR BOATS



The 5 Tube Dry Cell Operated BANDBOX, JR., $35

THE BANDBOX, JR., may be easily removed from its metal cabinet and installed in any panel It does not use an excessive amount of current.

MUSICONE, $15

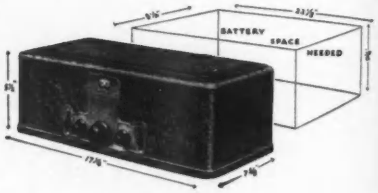
Original successful cone speaker, outstanding today among magnetic speakers. Improved modern.

Why miss radio on your yacht? Get a Crosley Bandbox or Bandbox, Jr. That is the satisfactory answer.

These receivers will operate with short antenna. Another thing, they are compact—note their space saving dimensions. They can be easily fitted into almost any odd corner.

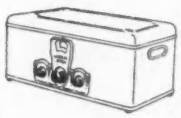
Operated from either storage battery or dry cells. And they embody every new, modern, worthwhile idea in radio today.

Ask any Crosley dealer for a five-day free demonstration in your home. If you cannot locate the nearest dealer write the factory. Dept. 62.



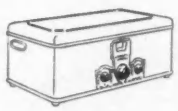
6 Tube Battery Type BANDBOX, $55

Genuine neutrodyne, with all modern refinements. Powerful, sweet toned and clear. Use storage A battery and B & C batteries.



New AC Electric Power Speaker Operating GEMBOX, $85

New radio refinements such as shielding. New neutrodyne circuit. Illuminated dial. 171-A power tube—three stages radio amplification—power speaker operation—power supply self-contained. No regeneration in detector tube. Switch on front of set. 7 tube AC Electric table model.



8 Tube AC Electric SHOWBOX, $80

Genuine neutrodyne, 3 stages of radio amplification, detector, 2 stages audio (last one being two 171-A push-pull power tubes) and 280 rectifier. Operates on same current as GEMBOX.

New Crosley Dynacone, $25

Dynamic speaker of new armature type gives volume, depth of tone and true reproduction never before possible in the popular priced field.

THE CROSLEY RADIO CORPORATION

Dept. 62

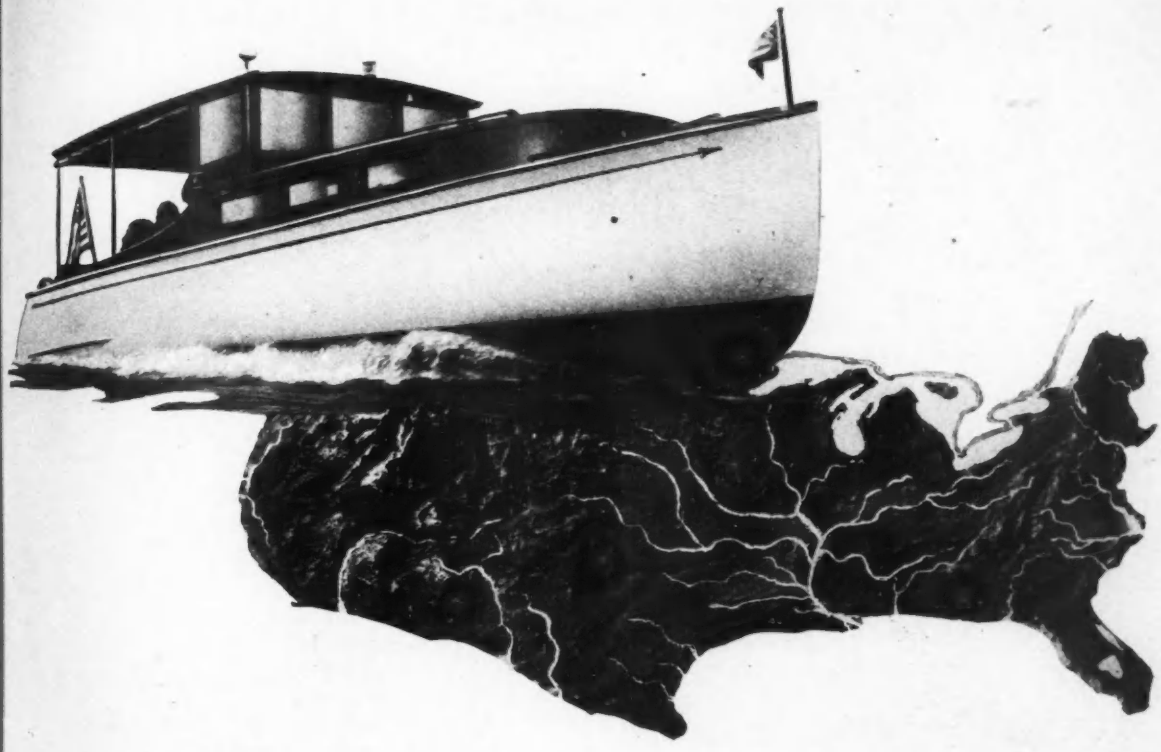
POWEL CROSLEY, JR., President

Cincinnati, Ohio

Owners of WLW—The Nation's Station

Montana, Colorado, Wyoming, New Mexico and West, Prices slightly higher. Prices quoted do not include tubes.

Advertising index will be found on 3rd last page



There's plenty of room for you on the NATION'S WATERWAYS

Cruisabouts are displayed by:

Bruns, Kimball & Co.,
Fifth Ave., & 15th St.
New York City

Bruns, Kimball & Co.,
102 So. Fourth St.,
Philadelphia, Penn.

Belle Isle Boat &
Engine Co.
8777 Jefferson Ave.,
Detroit, Mich.

Washington Motorboat
Sales Agency,
1344 Connecticut Ave.,
N. W.
Washington, D. C.

Walter H. Moreton Corp.
1043 Commonwealth Av.,
Boston, Mass.

Electric Supply Co.
210 21st Street
Galveston, Texas

A. M. Deering,
1454 Builders Bldg.,
Chicago, Ill.

Volney E. Lacey
Charlotte Sta.,
Rochester, N. Y.

F. D. Homan,
78 Riverside Ave.,
Amityville, L. I., N. Y.

The thousands of miles of scenic beauty along the inland and coastal waterways are yours to enjoy in rest, relaxation and care-free comfort if you have a Richardson Cruisabout. She will take you up winding, wooded streams or out on blue, white-capped water as safely and as easily as your automobile takes you over an improved country highway.

For roominess and comfort a Richardson Cruisabout compares with a Virginia homestead. For beauty she's as attractive as a southern belle and just as well behaved wherever she may be.

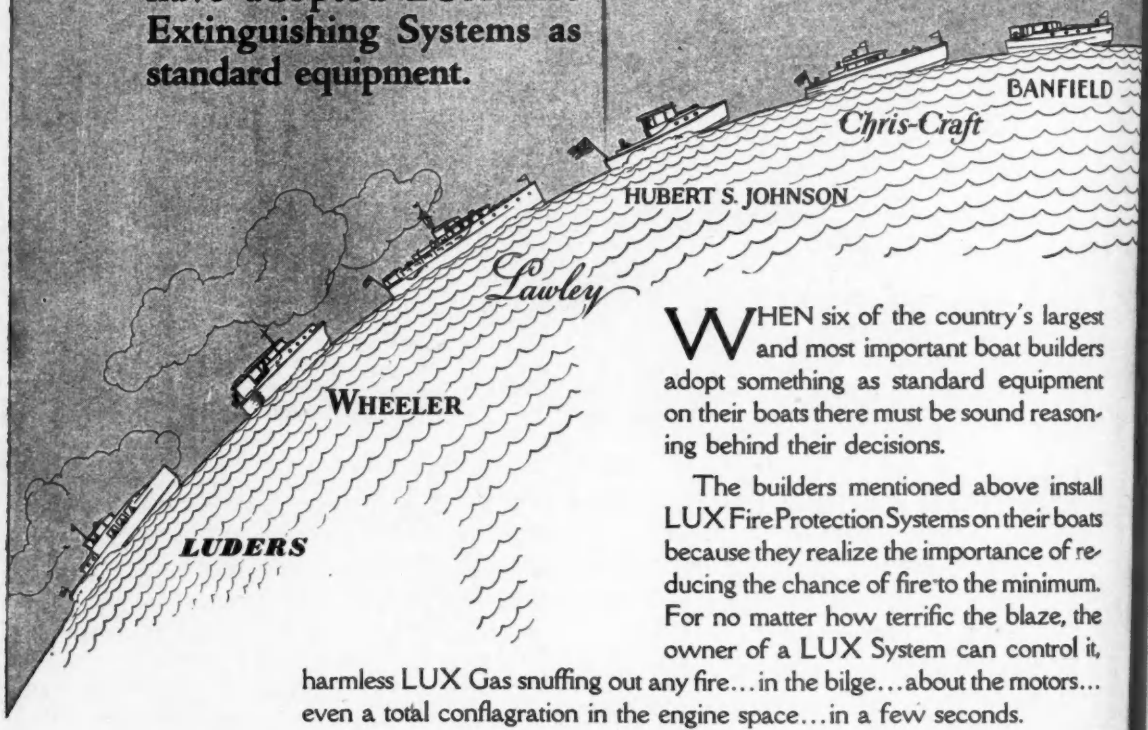
Plan now for this summer's pleasure by writing today for booklet "E" which completely illustrates and describes the three graceful, jaunty, low-priced Cruisabouts.

RICHARDSON BOAT COMPANY, INC.
351 Sweeney Street, North Tonawanda, N. Y.

Richardson Cruisabouts

LUX Standardized *for Safety!*

These six leading builders have adopted LUX Fire Extinguishing Systems as standard equipment.



WHEN six of the country's largest and most important boat builders adopt something as standard equipment on their boats there must be sound reasoning behind their decisions.

The builders mentioned above install LUX Fire Protection Systems on their boats because they realize the importance of reducing the chance of fire to the minimum. For no matter how terrific the blaze, the owner of a LUX System can control it, harmless LUX Gas snuffing out any fire... in the bilge... about the motors... even a total conflagration in the engine space... in a few seconds.

LUX Systems are used on more than 1300 yachts and government craft and are available in sizes for the smallest runabout or the largest Diesel yacht. Some are as low as $55. A request will bring you complete information.

Walter Kidde & Company, Inc.
140 Cedar Street
New York

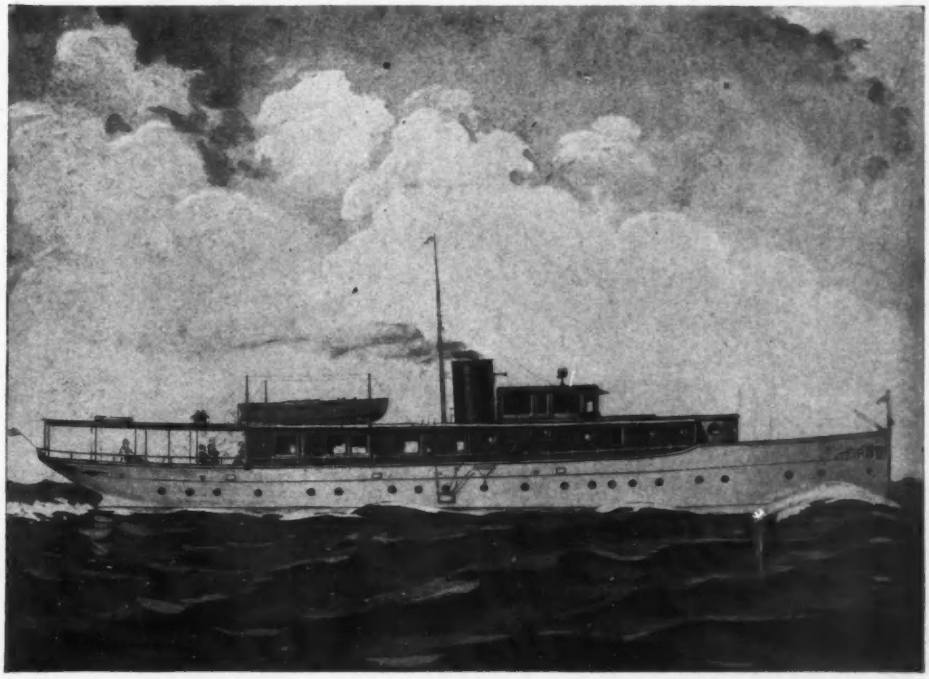
LUX

LUX FIRE EXTINGUISHING SYSTEM

Labeled by Underwriter's Laboratories

Advertising index will be found on 3rd last page

Is your Yacht a Pleasure Craft or Just a Boat?



The "Yoreda", a luxurious 106' yacht now building by the DeFoe Boat and Motor Works for Aaron DeRoy. The "Yoreda" is powered with two six cylinder type EP Bessemer Diesel Engines of 150 H.P. each at 500 R. P. M.

FOR TRUE YACHTING pleasure and comfort you must look to your engines. It is the power plant that makes a yacht either a pleasure craft or just a boat. Leading designers and builders and experienced yachtsmen recognize this fact and assure the utmost in smooth, quiet engine performance by powering with Bessemer Diesels.

That is why Bessemers were selected to power the fine new yacht "Yoreda", now being built at Bay City by the DeFoe Boat and Motor Works. Past performance in scores of the finest yachts has proved that Bessemer Diesels are smooth running to the point of vibrationlessness; quiet to the point of noiselessness; dependable to the point of unfailing performance.

With Bessemers your yacht will be a real "pleasure craft" — like the "Yoreda".

BESSEMER ENGINE COMPAMY
23 Lincoln Avenue ∴ Grove City, Pa.

Special Yacht Representative
EARL H. CROFT, Inc., 25 W. 43rd St., New York, N. Y.

BESSEMER

GIVE HER THE GUN!

Thirty-nine Feet of Husky Hull Will Leap to Your Touch With Thrilling Life and Action

Here's a boat for you! Every line of its handsome mahogany hull bristles with distinction. Its fine V bottom design affords superlative riding comfort—a marvelous turn of speed to satisfy the most sophisticated. You will find every convenience at hand to make ownership a real joy. Berths for four, galley, toilet, deep upholstered driving seats, automobile type controls, spacious closed-in cabin, roomy after cockpit, speeds of 30 to 32 miles per hour combine to serve you with faultless taste. The 39-foot Seagull Sedan Cruiser represents a superlative completeness—at a superlative value. Its companion boats—the 42-foot Twin Screw Commuter and Twin Screw 39-foot Red Arrow Day Cruiser, likewise offer the same high degree of boating performance. Description, specifications and delivery dates on request.

39-FOOT SEAGULL	42-FOOT COMMUTER	38-FOOT RED ARROW
$13,200 to $14,300	$22,500	$12,800

Represented by **A. C. F. Salons, 217 W. 57th St., New York City; 500 East Jefferson Ave., Detroit and S. Clyde Kyle, Rialto Bldg., San Francisco; Walter Moreton, 1043 Commonwealth Ave., Boston; Kimball Marine Corp., 29 Wacker Drive, Chicago; R. B. Lechinger, Houston, Texas.**

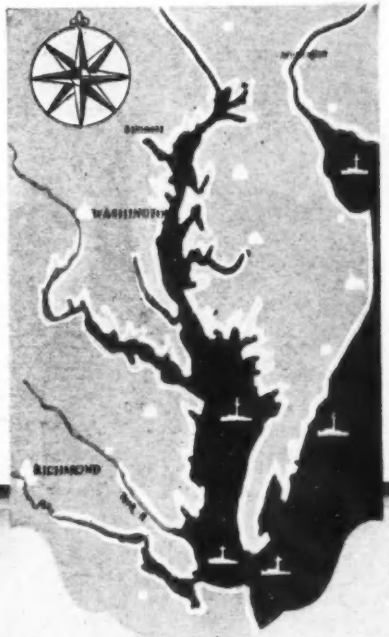
ROBINSON *Seagull*

ROBINSON MARINE CONSTRUCTION CO.
BENTON HARBOR **MICHIGAN**

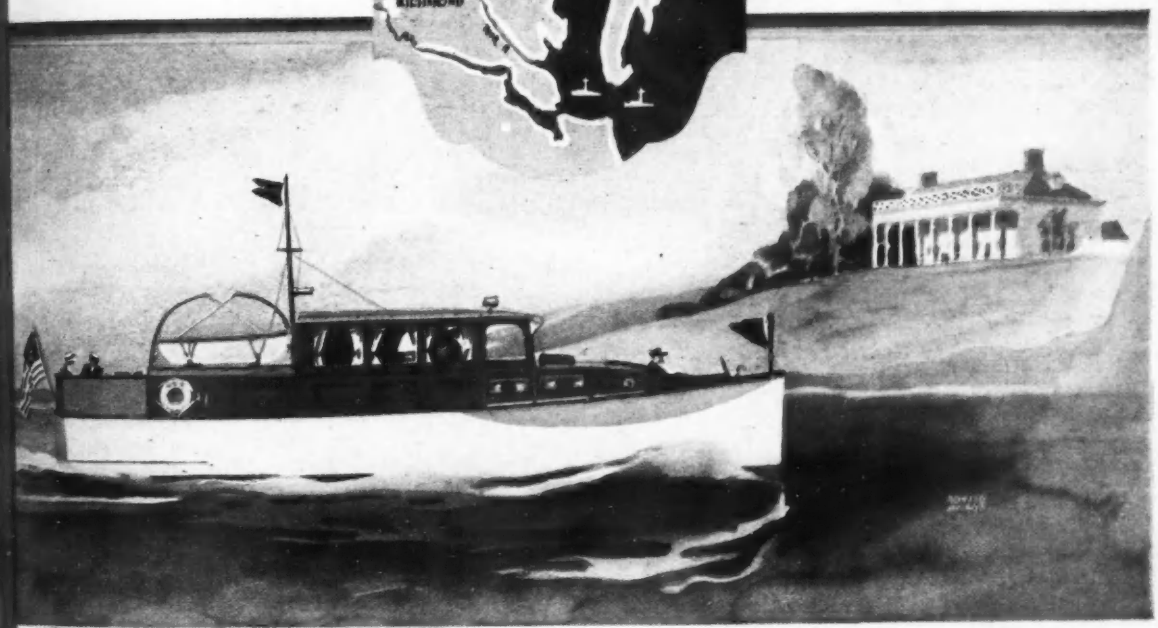
Advertising index will be found on 3rd last page

Just this side of Paradise

Chesapeake's 5000 miles of crinkled coastline, cradle of colonial charm



A.C.F.'s new cabin cruiser "40", the realized dream of leading yachtsmen



PARADISE of the past . . . Chesapeake and the Eastern Shore! Where the lovely labyrinthian coastline lured America's first settlers and still shelters their stately mansions.

Scarcely less unique than the Bay itself in the way it compresses much in small compass, is the remarkable new A. C. F. "40" cabin cruiser, so helm-responsive that intricate inland navigation is easy, yet offering ocean-going seaworthiness.

Step aboard and examine its compact completeness . . . its sleeping quarters for five and crew; the large forward cockpit; the crew-cabin; the roomy galley; the forward lavatory; the enclosed bridge-deck; the large master's cabin, with lavatory; the commodious lounging deck, astern.

Fully equipped even to linen and china, like all other A. C. F. Cruisers (the "30", "47", "54", "68", and the swift cruiser-runabout). Write for full details to A. C. F. Marine Salon, 217 West 57th Street, New York. Other show rooms at: Boston—Noyes Marine Sales Co., 1037 Commonwealth Avenue. Detroit—A. C. F. Salon, 500 E. Jefferson Avenue. Cleveland—N. J. Shea, 1424 Lauderdale Avenue, Lakewood. San Francisco—S. C. Kyle, 427 Rialto Building. Chicago—Ward A. Robinson, 58 E. Washington Street. Wilmington, Del. —American Car and Foundry Company.

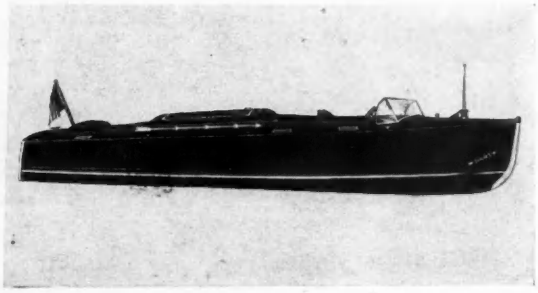
a.c.f.
cruisers

AMERICAN CAR AND FOUNDRY COMPANY

DART

Proper Planing Angle
Unusual Seaworthiness
More Speed per H.P.
Deferred Payment Plan

It is now possible to own a beautiful Dart Runabout for a down payment of less than $1200.00. With a Dart you can enjoy the thrill that only a fast boat can give and with a Dart you can experience boating such as no other runabout offers.



For the Dart offers exceptional speed per horse power, and smooth effortless riding qualities, combined with a seaworthiness which is truly remarkable.

These attributes are the result of scientific design and construction. The Dart planes at just the proper angle to effect a graceful, smooth entrance without the pounding experienced in boats whose prows are held too high above the water. This also throws a flat spray well away from the boat, keeping the forward and after cockpits dry even in heavy going.

Dart Runabouts are built in three lengths: 22½ foot, 26 foot and 30 foot. The longer models are obtainable in either open or sedan design and there is a choice of runabout and speedster type in all three models.

The 22½ foot Dart will easily make 37 miles per hour. It seats eight comfortably and is ideal for rivers and the smaller lakes.

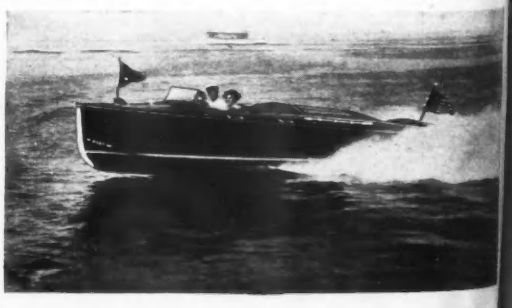
The 26 foot Speed King will make 42 miles per hour. It will seat ten and is a perfect craft for fast cruising in any waters. In appearance it is probably the most beautiful runabout in the world.

The 30 foot model represents the ultimate in dependable and luxurious water travel. This boat is equipped with either Single or Twin Screw and makes a maximum speed of 38 miles per hour. In either the open or sedan model, it has ample accommodations for twelve passengers.

The entire hull and decks of every model are of the finest grade of imported mahogany, matched and polished with a cabinet maker's precision.

Keel and chines are of oak—a single piece extending from stem to stern. Frames are of clear ash and the hull is strengthened with steam bent oak frames from sheer to keel, copper riveted.

Write for complete description, specifications and learn our convenient plan of deferred payments which enables you to pay for a Dart while you are enjoying its use. Dealer franchises are available in a few choice territories.



DART BOATS INCORPORATED
TOLEDO · OHIO

Consolidated Marine Instrument Panel used on Dyer Motorcraft.

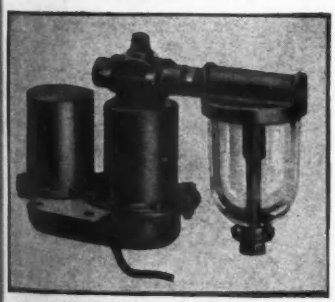
Flood Lighted Type T Instrument Panel
Complete with Tachometer, Oil Pressure Gauge, Heavy Duty Ammeter, Distance Type Thermometer, and installation connections. Nickeled brass bezel and gold-silver mat.

RIDING the swishing waters with effortless grace, Dyer Motorcraft are easily piloted with the aid of Consolidated instrument panels. The flood-lighted instruments accurately report the engine's operating condition so that the slightest fluctuation in engine efficiency is promptly signalled to the pilot. For safety and economy in operation, Consolidated instrument panels are standard equipment on Dyer runabout and cruiser Motorcraft.

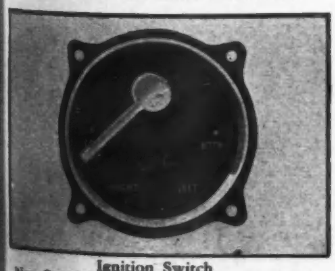
For snappier starting, increased driving power, and reliable fuel supply under all boating conditions, your engine should also have the aid of an electro-magnetic Feed-A-Motor fuel pump attached anywhere along the fuel line. Easily installed. Action automatically regulated by engine.

Atmospheric conditions never interfere with the sure-fire action of the Consolidated marine ignition switch, for the non-corrosive Bakelite case protects the mechanism.

The conscientious performance of Consolidated instruments reflects their precision construction. Write for further information.



Single-Unit Feed-A-Motor
Feed-A-Motor is an electrically driven fuel pump. Feeds engine any required capacity of fuel up to 18 gallons per hour. Parts made of brass, bronze, and Monel metal. Also double unit available.



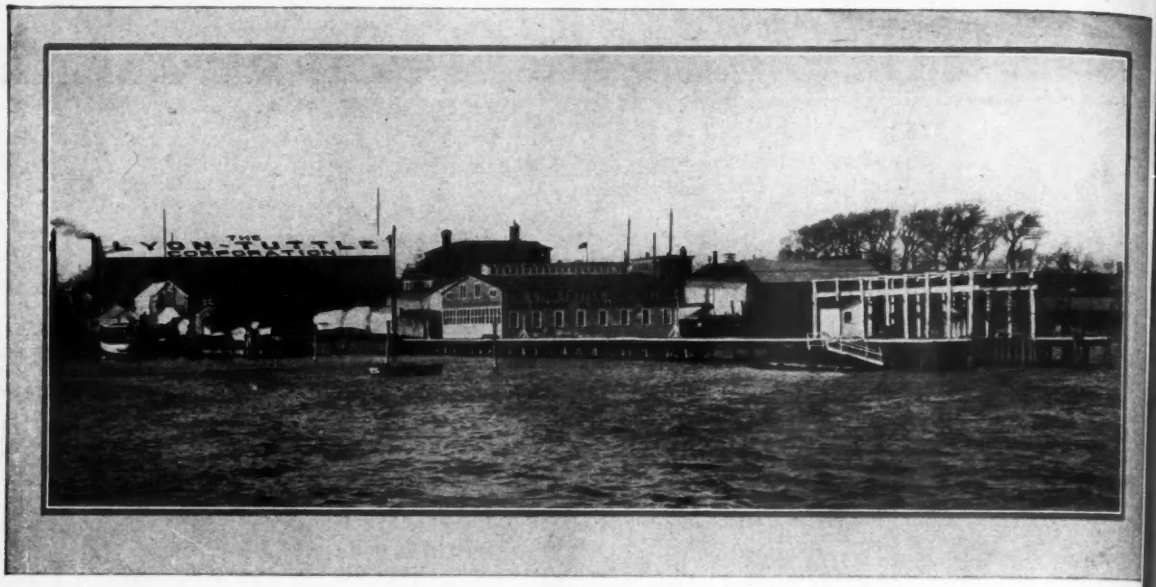
Ignition Switch
New Consolidated ignition switch for double ignition use. Bakelite case eliminates corrosion, insuring longer performance. Also single ignition switch available. Dial 2¾ inches in diameter.

CONSOLIDATED INSTRUMENTS

CONSOLIDATED INSTRUMENT CO. *of* AMERICA, Inc.
305 East 47th Street, New York City

Subsidiary Companies
Julien P. Friez and Sons, Inc., Baltimore, Md.
Molded Insulation Co., Mt. Vernon, N. Y.
Aircraft Control Corp., Philadelphia, Pa.

Western Sales Manager
M. E. Hulse, 5391 Broadway, Oakland, Calif.



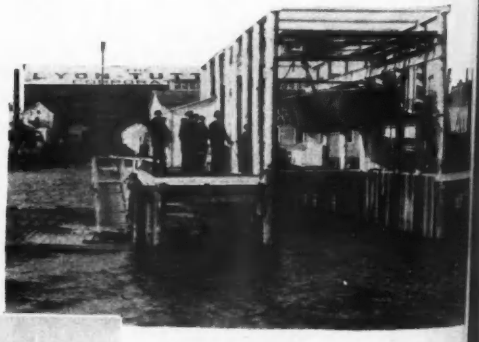
Going Into Commission

BEFORE you put your boat into service this spring, let us show you what we can do to insure your satisfaction throughout the season. Whether it is a runabout, a cruiser or yacht up to 150 feet, you will find this modern shipyard has the latest and most complete facilities for every operation of handling, overhauling, repairs and maintenance.

Service equipment that saves you money—railways, hoists, elevators, rail tractor and other special labor saving machinery of every sort, with a well organized personnel of experienced yacht and engine craftsmen—all these are at your command for quick service at reasonable cost. Installations, alterations, refinishing, painting and repairs of any extent up to completely rebuilding your boat or engine, are easily within the capacity of this plant.

Lyon-Tuttle Service is so totally different that it is well worth trying, just as the Sea-Lyon runabouts we build here have established a new standard of quality in the fine boat field.

Come up to City Island at your first opportunity and inspect this shipyard for yourself. You will be impressed by what you see.



LYON-TUTTLE CORPORATION

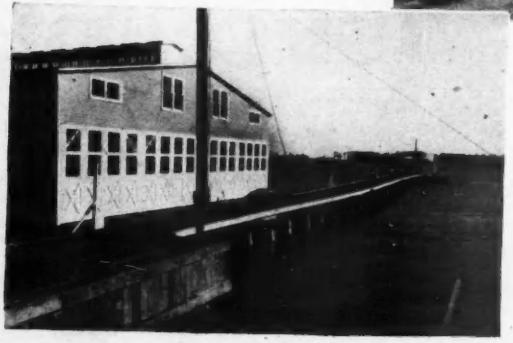
King Street, City Island, New York City

Telephones: City Island 1645-1646

Salesrooms

Howard W. Lyon
INCORPORATED
Hotel Barclay
532 Lexington Ave.
(at 49th St)
New York
Telephones: Vanderbilt 4445-4446

SEA-LYON
RUNABOUTS



An electric elevator that hoists a runab bodily out of the water at all tides, w connecting railway to all parts of the yar and all floors of the main building. 50 ton and 100 ton marine railways another electric boat elevator at main pla A runabout in the water can be hoisted and set down in the repair shop a thous feet away within ten minutes.

Runabout storage building and locker h at the water's edge, on 350 ft. dock.

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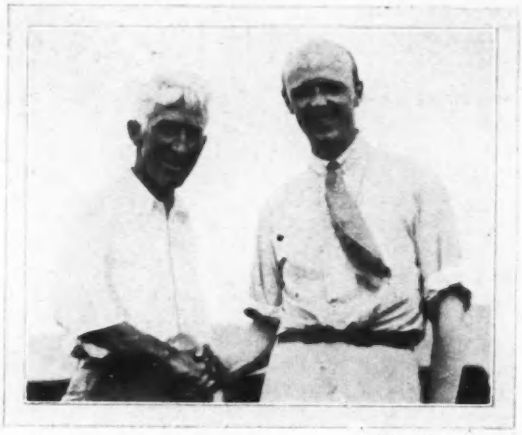

International News Reel

Major H. O. D. Segrave, who set a new record for automobile speed driving, with Gar Wood, Detroit speedboat king, as they appeared prior to their trials. Gar Wood succeeded in setting up a new record of 93.123 m. p. h.

MAY, 1929

Vol. XLIII, No. 4

MOTOR BOATING

FIFTY-SEVENTH STREET
AT EIGHTH AVENUE
NEW YORK, N. Y.

Edited by

CHARLES F. CHAPMAN

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CALENDAR OF COMING REGATTAS AND SHOWS ON PAGE 246

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RACING CLASSICS FOR 1929

ALBANY-NEW YORK

NEVER before in the history of motorboating has there been such a keen interest in racing as is evidenced this year. Not only are the number and importance of the contests much greater than previously but the last traces of winter have hardly passed on, before plans are actively in the making for regattas of all kinds throughout the land.

The earliest event scheduled in northern latitudes is the famous long distance outboard race from Albany to New York. This event took place this year on April 20th and this issue contains a full report of this spectacular race.

The ease with which outboard boats and engines can be transported and put into the water makes it a simple matter for these boats to be put into service at any time irrespective of the season and also there are no problems of going into commission to consider with them. There have been mild days during the winter on which several of these hardy speedsters could be seen on the waters in the vicinity of New York practicing with their engines and preparing for the contests to come.

THE GOLD CUP REGATTA

No doubt the most important regatta of the east will be the Gold Cup Race which will be held on the Shrewsbury River on August 24 and 25th at Red Bank, New Jersey, under the auspices of the New Jersey Gold Cup Association. This was formed for the particular purpose of conducting this important contest and is composed of prominent members of the Red Bank Yacht Club and the Columbia Yacht Club, New York. At this writing it seems likely that there will be from ten to twelve boats ready to face the starter's flag in the Gold Cup Class. Since the rules for this class of boats were changed, no race has been held and this will be the first time that the hydroplane Gold Cup Class boats will compete. It seems that three members of the Red Bank Yacht Club headed by Commodore Gerald Holbrook are each building a new boat in a very determined attempt to take this premier racing trophy to their club. Richard F. Hoyt, prominent sportsman, who has been driving his fast runabout, Teaser, for several years and who had a Gold Cup boat, Imp, in the last race for this trophy at Indian Harbor, will also make an attempt with a new boat. Gar Wood of the Detroit Yacht Club will hardly consider a race of this importance complete unless he takes part, is building a new boat to fit this class. Cliff Hadley, prominent in the 151-inch hydroplane class is building a new boat for an owner not yet revealed, and Gibson Bradfield, Barnesville, Ohio, J. A. Talbot, Los Angeles, S. W. Dunsford, Concord, New Hampshire, and Dr. S. B. Smith, of Cleveland, Ohio, are all building boats for this race. In addition, rumors have been heard to the effect that Roy Keyes and Nelson Doubleday are also considering boats for this race.

CAPITAL TO CAPITAL CRUISER RACE

Out on the west coast the success of the long distance cruiser race last summer has stirred the enthusiam of cruiser owners to such an extent that it is planned to repeat the race again this year over the same course from Olympia, Washington, to Juneau, Alaska. The length is computed at 913 miles and the race run under the past performance handicap rules of the A. P. B. A. In the previous year's race there were two divisions. The smaller of these was for boats from 25-40 feet in length and the larger for 40-65 feet in length. For the race this year a third class has been added for vessels of larger size which will permit boats from 65-150 feet length to take part. All restrictions on power plants have been removed so that steam powered, gasoline engined, and diesel craft may compete. In the previous year's race the handicaps were deducted at the finish of the race so that it was more difficult for the skippers to determine their position pending the work for the handicap committee. This year the plan to be followed will take the handicaps from the starting time in the morning so that the slowest boat will start first, the fastest one last, and the thrills at the finish will be the attempts of each to arrive first. The time allowances for stop overs, refuelling, repairs, etc., will be four hours per day, accumulative to sixteen hours. This must all be used before the yachts reach Petersburg from which point on it will be a real serious race to Juneau. Indications point to at least a dozen fine yachts from the Puget Sound district and several from Los Angeles taking part in the race.

OUTBOARDS AT WORCESTER

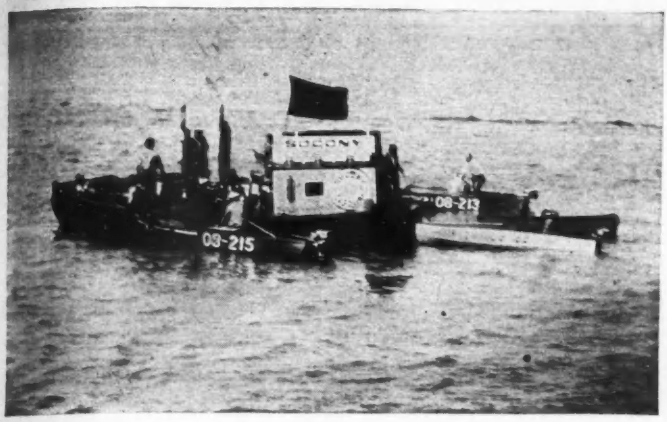
Lake Quinsigamond at Worcester will again be the scene of a stirring series of outboard races over the Decoration Day holiday this year. This lake furnishes an ideal body of water for high speed outboarding since it is sheltered from wind and is protected from almost all sides. Many remarkable records were set at the regatta last year and stood for a long time in the record tables. No doubt this year equally as many new records will be established at this regatta since all of the new boats and engines are likely to be present and keen rivalry exists among the prominent New England outboard drivers. This regatta really marks the opening of the racing season as there are no major regattas scheduled prior to this.

ACTIVITY AMONG CRUISERS

The Bear Mountain race scheduled for June 23, again promises to be the largest and most interesting cruiser contest on Eastern waters. Each year increasing numbers of cruising boats from all nearby yacht clubs have come to the Colonial Yacht Club and enjoyed its hospitality on the day of this race. From 35 to 40 boats have taken part and it seems quite probable that equally as many, if not more, will take part this year. This race has the advantage of being run over a relatively easy course and is of just sufficient distance to make a pleasant day's sail.

A joint committee from both the New York Athletic Club and the Colonial Yacht Club have been working on the conditions for the race for the Cruiser Championship of America. This year the contest for this trophy will be combined with one for the Hunt Trophy and both contests will be open to the same boats which will sail over the course and compete for both at the same time. The Cruiser Championship of America will be handi-

(*Continued on page* 118)



We'll meet you at the races

AT every boat race in New York and New England, you're pretty sure to find a Socony supply boat or truck—distributing Socony Special Gasoline and Parabase Motor Oil to the contestants.

Speed lovers tell us they have a better chance of winning when their boats are Socony-powered. No spitting, coughing and overheating. Socony gives an even flow of power at all times.

In the Southwest use the products of Magnolia Petroleum Company, and on the Pacific Coast, the products of General Petroleum Corporation. These are subsidiaries of Standard Oil Company of New York.

SOCONY

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GASOLINE ✓ ✓ ✓ SPECIAL GASOLINE

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STANDARD OIL COMPANY OF NEW YORK

MOTOR BOATING ABROAD

A BAN ON BOATS

IT seems that in some of the cities in England it is required that applications be filed for permission to operate motor boats on the waters of the cities. To us in America this proceeding is strange since all of our boats come under Federal regulations which are uniform throughout the land. A recent application to the Village Council of one of the Engiish villages for sanction to operate a boat was refused on the ground that the craft are still in an experimental stage and likely to be a danger. This action has rightfully aroused considerable discussion in England among the authorities and boatmen. Evidently the local councils and harbor boards in England are sadly lacking in knowledge of the progress in boats during recent years. It would almost seem that they consider them as some new engine of destruction which will destroy property by running back and forth on the waterways. This mistaken attitude will undoubtedly drive boating interests away from such communities and the patronage which might otherwise be enjoyed will go to those places which are more nearly alive to the possibilities, and the business which will be brought to the communities by this form of sport. The proud English boast in which they claim to be the leading maritime nation of the world can certainly not uphold such actions which discourage the love of the sea and ships by placing unnecessary obstructions in the way of their development.

WHAT SHALL WE CALL HIM

The Motor Boating World in England has given space to a discussion as to what is a suitable name for the sportsman who operates a motor boat. There seems to be great fear on the part of the English yachtsman of being mistaken for the hired hand on the boat so that such logical terms as motor boatman are taboo as this term is used for the employee. Various suggestions have been made such as motor boater and motor boatist but these do not seem to fit the requirements as they sound clumsy and inappropriate. Marine motorists and motor boat enthusiasts are also phrases which have been proposed but neither seems to come up to the class of people who indulge in this sport. Similar terms in connection with the outboard sport, such as outboarder and outboardist have been found lacking in something which defines the sportsman properly. Some of the correspondents have coined marvelous new words among which was suggested that of aquamotorist, and another aquestrian. Both of these terms also seem to fall short of what is required. We on this side of the Atlantic are content with the term yachtsman or motor boatman and designate our paid hands by the very dignified title of captain and, while members of yacht clubs are also addressed as captain, there never seems to be any confusion and members of clubs are rarely mistaken for the hired help on the boats. Why the Englishman should find it necessary to raise such a hubbub over a simple matter of this kind is beyond us.

AMERICAN PRODUCTS USED IN FINLAND

A perusal of the Finnish motor journal *Moottorilehti* would indicate that American manufacturers enjoy the confidence of the boating element and use American engines in their larger boats as well as American outboard engines on their smaller ones. The publication illustrates many of our most popular American machines to the exclusion of European products. Practically all of the prominent manufacturers are represented in Finland and this would seem to be a promising field for others who may not have established any connections with the dealers there.

FITTING OUT IN HOLLAND

The unusually severe winter which has held all of Europe in its frigid grasp for the greater part of the winter season has had its effect on boating activities as is apparent from the watersport journals published in the land of dikes and canals. The unusually severe ice and snow has delayed the spring outfitting to such an extent that the sport will be a month or more later than usual in getting into its stride. An interesting and prominent feature of the Dutch publications is the preponderance of sailing craft of the blunt nosed bojer type fitted with ponderous lee boards which are in common use in Holland. It would hardly seem that boats of this kind could develop sufficient speed to make sailing in them interesting but possibly the placid Dutch boatman is content to plod along at the slow rate which this type of boat permits. On the other hand there are also in use many fine fast boats built according to international rules which compare very favorably with the classes with which we are all familiar in America.

GERMANY IS TECHNICAL

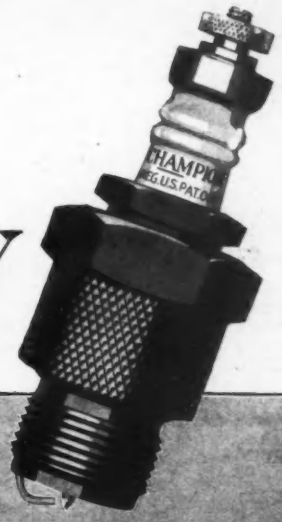
Prominent among the features in the German publication *Die Yacht* in recent issues has been a series of articles dealing with the whys and wherefores of the hydroplane. As is usual with German engineers, the articles are highly technical and go into the problem in a most thorough and exhaustive manner. One of these also considers the problem of the screw propeller and the application of rudders of various forms to the speed boat hull. The bow rudder and the usual forms of outboard rudders were exhaustively studied particularly to their relation to the action of the boat and the obstruction caused to the stream of water flowing by when the boat is in motion. The conclusion reached is that there does not seem to be any limit to the speed possible with the hydroplane type of boat and they believe firmly that with the increase in the ability of high powered motors that these boats will continue to increase their speed possibilities, at every attempt.

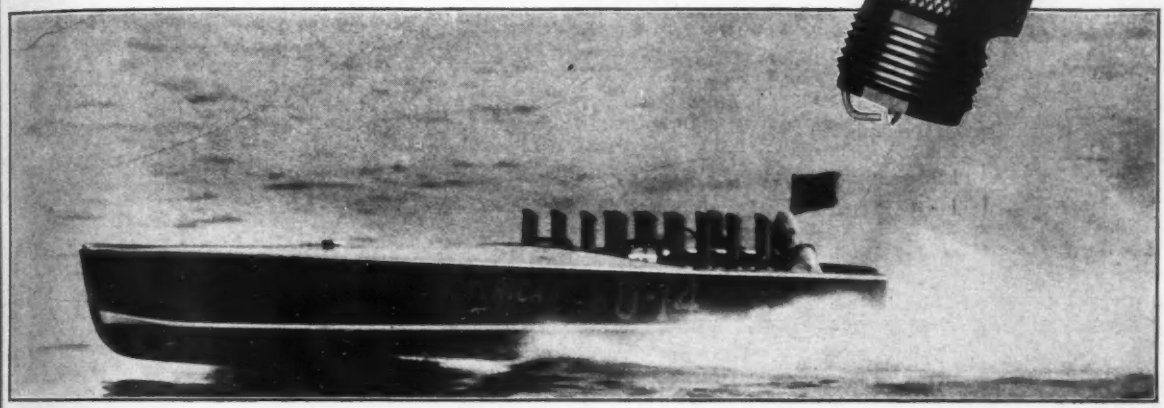
A NOVELTY IN AUXILIARIES

A modification of the small portable auxiliary engine which might be designated as an outboard is a type popular in Germany among yachtsmen as auxiliary power for sailboats. This little engine is called a side board engine and is arranged to attach about midships of a hull and be carried entirely clear of the hull with a long propeller shaft which extends into the water and propells the boat in this way. The engines themselves are diminutive single cylinder two cycle machines closely similar to the usual outboard engine carried at the stern. The advantages claimed are the greater simplicity of attachment to a boat which is so con-

(*Continued on page* 138)

Install *new improved* Champions *NOW*





Gar Wood, driving Miss America VII equipped with Champion Aero Nine Spark Plugs, opened the 1929 motor boat season with a new world's record of 93.123 miles per hour, March 26th, Miami Beach, Florida.

Save the Price of New Spark Plugs

Once again Champion reminds you that to thoroughly enjoy carefree and dependable motor boating throughout the boating season, you should install a complete new set of Champion Spark Plugs in your marine engine. Then you can forget spark plugs for the entire boating season.

No matter how well made a spark plug may be it will lose efficiency through the tremendous stress to which it is subjected.

The insulator becomes carbon-encrusted, and the electrodes corroded. This weakens the spark. Combustion is not complete. Gas is wasted and seeps past the pistons to dilute the oil. Power is lost, speed is impaired. The engine is sluggish and hard to start.

Although they give you much better service for a much longer time, even Champions should be renewed at the beginning of each boating season.

A new set of Champions assures you of the finest and most dependable performanee. The spark is intense and combustion complete. Power and speed are maintained at the maximum. The engine starts easily and accelerates instantly. The cost of these new spark plugs is nothing for they save more than their price in gas and oil economy and in the greatly improved dependability of the engine.

There is a Champion Spark Plug which is better for every marine engine—from the outboards on up. Remember it is a genuine economy to install new Champions, at least once a year.

CHAMPION

SPARK PLUGS

TOLEDO, OHIO • • WINDSOR, ONTARIO

AMERICAN MOTOR BOAT RECORDS

Mile Trials
(Average of 6 One Mile Runs)

Miss America VII, owned by Gar Wood, at Miami Beach, Florida, March 23, 1929. Built by Gar Wood, Packard motors. Speed 93.123 m.p.h.

Gold Cup Class

625 cubic inch displacement boats

Fastest heat (3 miles) Hotsy Totsy, owned by Caleb Bragg, Greenwich, Conn., 1927. Time, 35:06:83; speed, 51.261.

Fastest lap (3 miles), Imp, owned by Richard F. Hoyt, Manhasset Bay, 1926. Time, 3:22; speed, 53.58.

Total race (90 miles), Greenwich Folly, owned by George H. Townsend, Greenwich, Conn, 1927. Time 1:51:34.21; speed, 48.39.

(Unlimited Hydroplane)

Fastest heat (30 miles), Miss America, owned by Gar Wood, Detroit, 1920. Time, 25:44; speed, 70.0.

Fastest lap (5 miles), Miss America, owned by Gar Wood, Detroit, 1920. Speed, 71.4.

Total race (90 miles), Miss America, owned by Gar Wood, Detroit, 1920. Time, 1:28:07; speed, 62.0.

Detroit Sweepstakes

Fastest lap (3 miles), Packard Chris Craft 11, owned by Colonel J. G. Vincent, Detroit 1925. Speed, 58.95.

Total race (150 miles), Packard Chris Craft II, owned by Colonel J. G. Vincent, Detroit, 1925. Time, 2:41:47.10; speed, 55.65.

British International Trophy
Unlimited Hydroplanes

Fastest heat (38.1 miles), Miss America I, owned by Gar Wood, England, 1920. Speed, 61.5.

Fastest lap (5.75 miles), Miss America V, owned by Gar Wood, Detroit, 1926. Speed, 72.70.

24 Hours

Rainbow IV, owned by Harry G. Grèening, Lake Rosseau, Canada, October 2-3, 1925. Total miles, 1218.88. Speed, 50.78.

1½ Liter Class (Trial Runs)

Newg, owned by Miss M. B. Carstairs, England, March 12, 1927. Speed, 39.45.

In Competition, Little Spitfire, owned by J. H. Rand, Jr., Detroit, September 3, 1927. Speed, 42.17.

151 Class—Unlimited

1-mile straightaway, Spitfire V, owned by J. H. Rand, Jr., Albany, N. Y. July 5, 1927. Speed, 62.82.

In competition, Spitfire V, owned by J. H. Rand, Jr., San Diego, Calif., December 12, 1927. Speed, 55.42.

One lap in competition, Miss California, owned by Loynes-Harris, San Diego, Calif., December 12, 1927. Speed, 59.68.

151 Class Limited

In competition, Miss California, owned by Dick Loynes, at Sarasota, Florida, March 8, 1929. Speed, 49.20 m.p.m.

Mile trials, Miss Rioco, owned by J. A. Talbot, Miami Beach, Florida, March 19, 1928. Speed, 50.60.

340 Class

Miss California, owned by Loynes-Harris, Houston, Texas, July 2, 1927. Speed, 50.99.

510 Class

Miss Houston IV, owned by Frank H. Robertson, Louisville, Ky., July 5, 1926. 10 miles—in competition. Speed, 51.28.

7⅛ miles, Miss Kemah, owned by Henry Falk, Houston, Texas, July 4, 1927. Speed, 53.41.

One Mile Trials—Miss Houston IV, owned by Frank H. Robertson, Louisville, Ky., July 5, 1926. Speed, 53.43.

725 Class

5 miles—Helen, owned by M. J. A. Mitchell, Louisville, Ky., July 5, 1926. Speed, 61.22.

Mile straightaway, Doc's II, owned by I. R. Van Sant, Peoria, Illinois, October 11, 1925, winning King of Belgians' Trophy. Speed, 61.77.

Single Engine Hydroplanes

1 mile, Miss Chicago, owned by Sheldon Clark, Detroit, Sept. 3, 1921. Speed, 72.86.

15 miles in competition, Fore, owned by W. D. Foreman, Cincinnati, Ohio, September 29, 1923. Speed, 64.75.

OUTBOARDS

Class A

2 Mile Amateur

BRRRRRR, owned by A. Sutherland, at Springfield, Mass., July 8, 1928. Built by Cute Craft Corp., Lockwood engine. Speed, 24.00.

2½ Mile Amateur

Lightnin' II, owned by Carl Bernard, at Madison, Wisconsin, August 5, 1928. Built by Gordon B. Hooton, Lockwood engine. Speed, 24.53 m.p.h.

4 Mile Amateur

Bumble Bee, owned by G. Pickard, at Wilmington, N. C., October 5, 1928. Built by Herbst Boat Co., Lockwood engine. Speed, 25.00 m.p.h.

2 Mile Free for All

Cute Craft, owned by A. T. Buffinton, at Worcester, Mass., May 30, 1928. Built by Cute Craft Corp., Lockwood engine. Speed, 23.841.

Class B

Mile Trials—Amateur

Min, owned by Alice Hallewell, at Albany, N. Y., July 6, 1928. Built by Water Wracer Co., Lockwood engine. Speed, 29.709.

2 Mile Amateur

BRRRRRR, owned by A. Sutherland, at Springfield, Mass., July 8, 1928. Built by Cute Craft Corp., Lockwood engine. Speed, 30.638.

2½ Mile Amateur

Little Miss Catalina, owned by H. Bair, at Lake Elsinore, California, December 8, 1928. Lockwood engine. Speed, 31.37.

3 Mile Amateur

Powder River, owned by Dr. Rogers, at Oshkosh, Wisconsin, July 15, 1928. Built by Gordon B. Hooton, Lockwood engine. Speed, 29.59.

4 Mile Amateur

Bumble Bee, owned by E. Pickard, at Wilmington, N. C., October 5, 1928. Built by Herbst Boat Co., Lockwood engine. Speed, 33.33 m.p.h.

5 Mile Amateur

Cutie, owned by K. Jenkins, at Lake Elsinore, California, December 8, 1928. Built by Cute Craft, Caille engine. Speed, 33.58 m.p.h.

6 Mile Amateur

Powder River, owned by Dr. Rogers, at Oshkosh, Wisconsin, July 15, 1928. Built by Gordon B. Hooton, Lockwood engine. Speed, 29.268.

4 Mile Free for All

Bumble Bee, owned by E. Pickard, at Wilmington, N. C., October 5, 1928. Built by Herbst Boat Co., Lockwood engine. Speed, 33.57 m.p.h.

Mile Trials—Free for All

Wilkie's Baby Cute Craft, owned by J. E. Wilkinson, at Worcester, Mass., May 29, 1928. Built by Cute Craft Corp., Lockwood engine. Speed, 35.660.

2 Mile Free for All

Original Spencer Special, owned by R. M. Spencer, at Springfield, Mass., July 8, 1928. Built by R. M. Spencer, Lockwood engine. Speed, 30.901.

3 Mile Free for All

Wee Minneford, owned by E. Hauptner, at Greenwood Lake, N. Y., July 5, 1928. Built by owner, Lockwood engine. Speed, 28.42.

5 Mile Free for All

Cutie, owned by K. Jenkins, at Lake Elsinore, California, December 8, 1928. Built by Cute Craft, Caille engine. Speed, 33.03 m.p.h.

Class C

Mile Trials—Amateur

Firefly II, owned by Charles Holt, at Newport Beach, California, June 3, 1928. Built by F. Ashbridge, Evinrude engine. Speed, 38.436.

1 Mile Amateur

Firefly, owned by Charles Holt, at Long Beach, California, May 20, 1928. Built by F. Ashbridge, Evinrude engine. Speed, 33.333.

2 Mile Amateur

My Gawd, owned by Jim Daniels, at Tampa, Florida, November 29, 1928. Built by Gordon B. Hooton, Johnson engine. Speed, 35.12 m.p.h.

2½ Mile Amateur

Bonnie Lass, owned by J. F. Graham, at Lake Elsinore, California, June 10, 1928. Built by J. F. Graham, Evinrude engine. Speed, 34.749.

3 Mile Amateur

Chief Osh, owned by Dr. Rogers, at Oshkosh, Wisconsin, July 15, 1928. Built by Gordon B. Hooton, Johnson engine. Speed, 32.73.

4 Mile Amateur

Rubber Baby II, owned by E. Pickard, at Wilmington, N. C., October 5, 1928. Built by Herbst Boat Co., Johnson engine. Speed, 35.38 m.p.h.

5 Mile Amateur

Flying Scotchman, owned by D. Mackay, at Lake Elsinore, California, December T, 1928. Built by Holt, Evinrude engine. Speed, 36.81 m.p.h.

6 Mile Amateur

Chief Osh, owned by Dr. Rogers, at Oshkosh, Wisconsin, July 15, 1928. Built by Gordon B. Hooton, Johnson engine. Speed, 32.23.

10 Mile Amateur

Flying Scotchman, owned by David Mackay, at Lake Elsinore, California, July 4, 1928. Built by B. Holt, Evinrude engine. Speed, 34.615.

(Continued on page 116)

GOLDEN DAYS AND SILVER WATERS

FROM the hottest days of midsummer, this man escapes at will—his sweltering office, his land-locked home are left behind. He is off on the cool, flashing sea to a vacation in Maine!

Quiet, peace, serenity are his... long, lazy hours fly by in a splendid procession . . . they show him the changing coastline of a hundred ports and beaches. A salt wind freshens... the white foam churns beneath his cruiser... his pleasure is as deep as the ocean, as timeless as a primitive world before time began!

For every day on the water is a fresh adventure—whether you go for an extended vacation, a week-end at Marblehead or simply to cruise . . . to fish . . . to drift.

It is true that few men can own such a servant as the boat we speak of. But the man who does, knows summer at its best. He can use his boat to commute to his offices, away from the clatter and dust of trains and motor cars. In his leisure hours he finds in it a thrill and a diversion, not only for himself but for his friends.

And whether he moves so slowly as to scarcely stir a ripple or speeds over the Sound at thirty-five to forty miles an hour —his boat will give him unfailing performance, because its engine is a Wright Typhoon.

WRIGHT TYPHOON

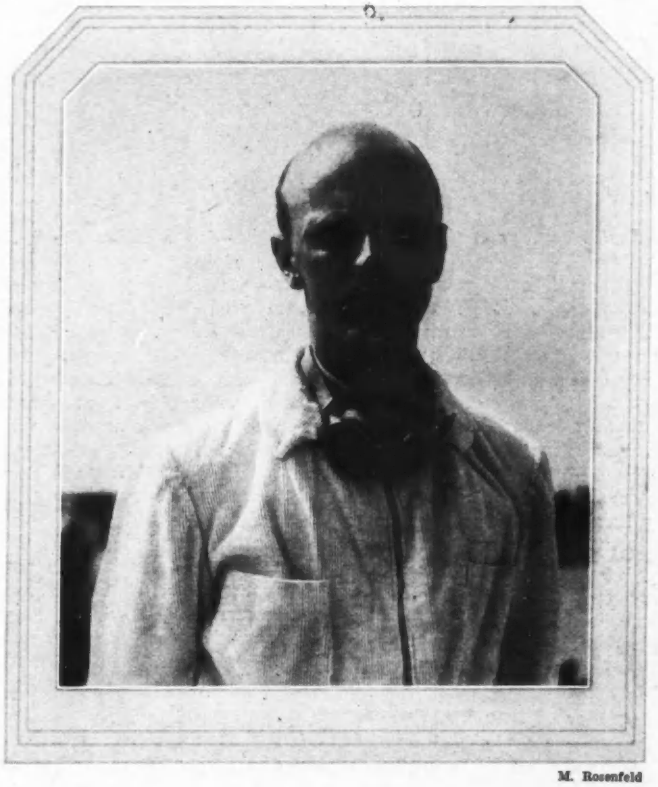
Address inquiries to Marine Engine Division

WRIGHT AERONAUTICAL CORPORATION

Paterson, New Jersey

AN ALASKAN CHILKAT SAILING CANOE

Painting by Sidney Laurence



M. Rosenfeld

Major Segrave, owner and driver of Miss England and leading racing man in England

AMERICA IS BOAT MINDED

SAYS MAJOR H. O. D. SEGRAVE

ON the eve of my departure for England I wish to thank, through the medium of the columns of MoToR BoatinG the host of Americans connected in one way or another with boat racing who made my visit so pleasant. I have never so thoroughly enjoyed anything as I have coming to America with my boat Miss England, and competing in the greatest regatta in the world at Miami Beach.

Carl Fisher, C. W. Chase, George Harrison Phelps, C. F. Chapman and others of Miami Beach who had the affairs of the regatta so far as it related to their city, directly in charge, were kindness itself. Nothing that we asked for was overlooked,—we were given both information and physical assistance. I shall always remember the Carl Fisher boat slips and the wonderfully efficient way boats are handled there. In going to Miami Beach I met Mr. Fisher for the first time, though his name coupled with his beautiful city is almost a household word in Europe. In mentioning only Mr. Fisher, Mr. Chase, Mr. Phelps and Mr. Chapman I do not mean to forget others in Miami Beach. But every one was so very kind it is not possible to mention them all.

So far as the regatta *per se* is concerned, I have had nothing that impressed me more than the handling of that race by the officials of the American Power Boating Association. The efficiency of the working organization and the rules was a revelation to me. Everything moved with clocklike precision, everything was on time. When the course was supposed to be clear it was clear; when a race was scheduled to start, it did start.

For some time past, from an international point of view, the English motor boat manufacturing industry

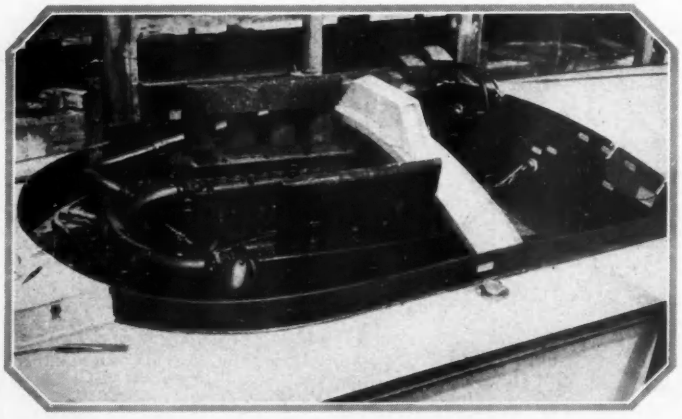
AN ALASKAN CHILKAT SAILING CANOE
Painting by Sidney Laurence

Miss England, winner of the International unlimited race at Miami Beach, Florida

has suffered seriously from an inferiority complex as regards its American counterpart. The war set us back very badly, indeed, and only now are we beginning to undertake the manufacture of fast runabouts and speed boats with any degree of seriousness. Our potential markets are much smaller than are those in America and our waters are less protected and need an entirely different type of craft to give satisfactory everyday use.

We are beginning to develop our own class of boats, but again, are seriously handicapped because of a lack of motors developing between 100 and 200 horsepower. In fact, this class motor is practically non existent as a marine job, and we are obliged thus to adapt aircraft motors, which are not as completely satisfactory as a marine motor would be.

One of the principal reasons for my coming to America was to do my utmost to help the British motor boat industry generally and to show that at any rate there was one firm capable of building really a first class fast type of racing boat. I am firmly of the opinion that Miss England, which was designed by Fred Cooper and built by Hubert Scott-Paine, of the British Power Boat Company at Hythe, Southampton, is without question one of the most remarkable craft of its kind that has been turned out by any builder.



The cockpit and 900 h. p. Napier motor in Miss England

It should be recalled that England has never really had a boat that could furnish real competition to that superspeed merchant of America, Gar Wood. We have, at different times, sent boats over to America in an endeavor to lift the speed cup through the medium of the British International Trophy, but with more than indifferent success.

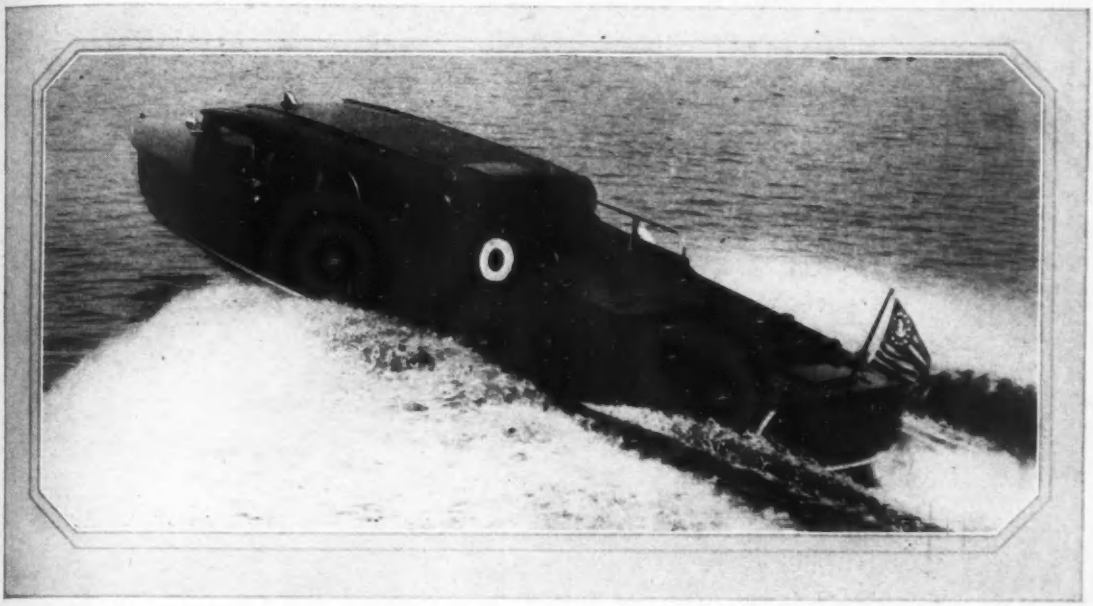
Equipped as Miss England is with but a single engine—a twelve-cylinder Napier-Lion developing 900 horsepower, it attained a speed of eighty-eight miles an hour measured by a stopwatch, a speed which hitherto was not thought possible for any boat powered with a single motor. I frankly admit that its performance pleased me immensely. We were so delayed in getting the boat finished that it had never been in the water until we placed it afloat in the Halifax river, at Daytona Beach.

As a result of my winning the race with Gar Wood at Miami Beach I think you will find that British motor boating will get a great impetus. While admittedly Miss England is not so fast as the 2,100 horsepower boat of Gar Wood's, still its remarkable performance will go far to convincing the British builders that they can now go ahead and build boats for the faster races in which American boats compete.

To go for a moment to the question of international competition:

Gar Wood has had the high speed field to himself for the past eight years. His craft today stand absolutely unrivaled in his field. To build a boat to compete with any of his costs very much more money than the average person can afford. Part of this heavy cost is incurred by the newcomer through the unavoidable experiments which have to be carried out. Fortunately we now have, through the performance of Miss England, gained that necessary knowledge in some degree. My boat was, frankly, in large degree, experimental, in that England had never built a craft so fast. However, her hull design was based on sound lines, as were her other parts. My trip to Florida has been the means of adding much knowledge to that we already possessed.

Recalling that right at (*Continued on page 92*)



M. Rosenfeld

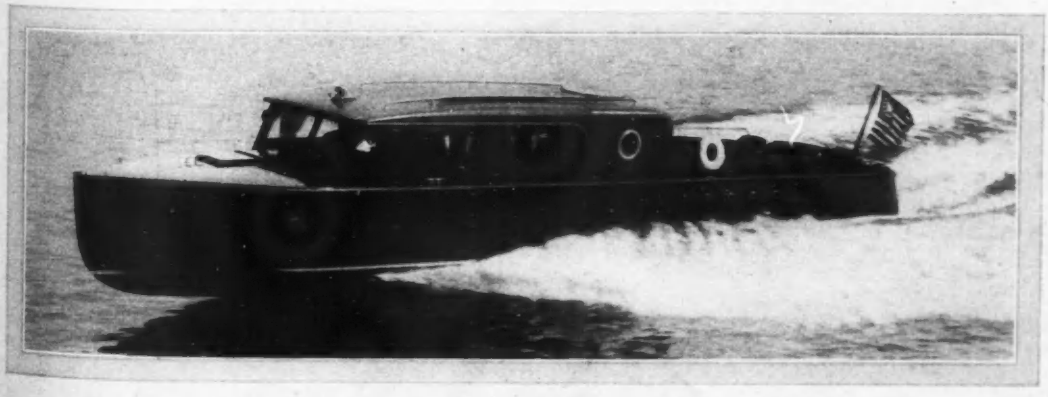
When powered with either the large Hall-Scott or Sterling engines, the Seagull is capable of speeds better than 30 m. p. h.

WHERE SPEED IS WORTH WHILE

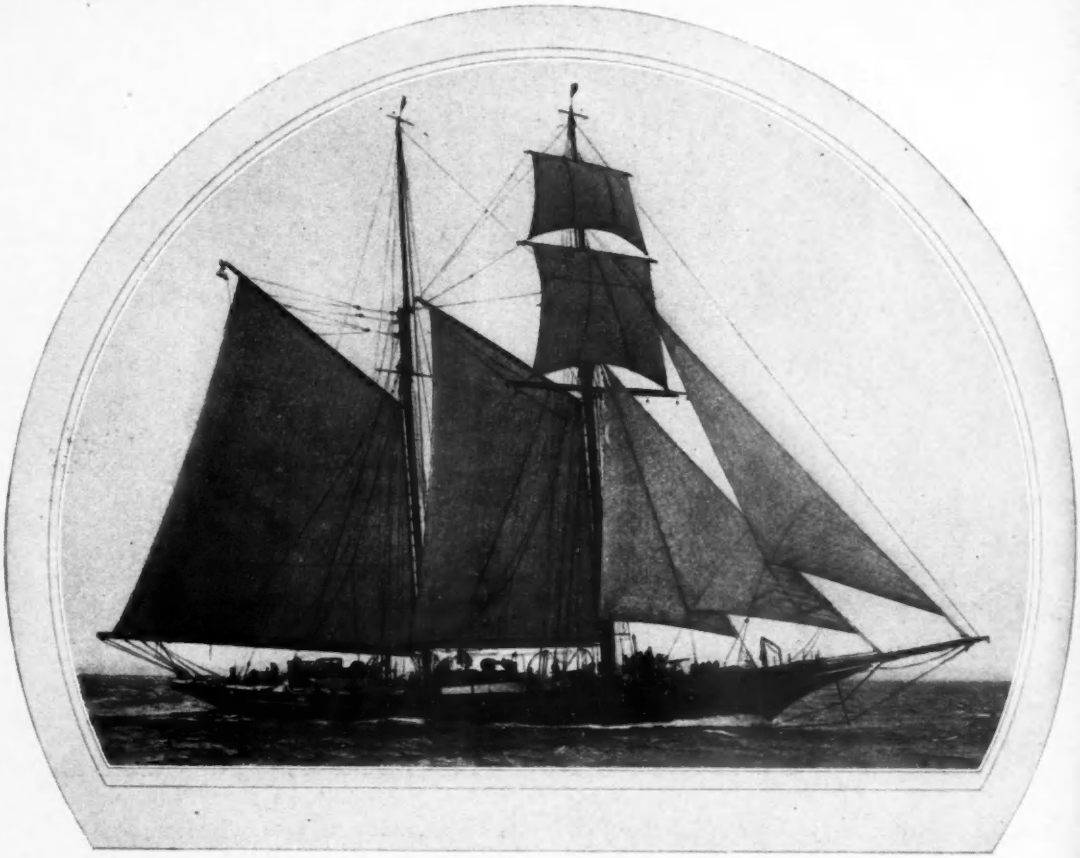
The Thirty Nine Foot Robinson Sea Gull Sedan Cruiser Makes An Attractive Boat for Commuting or Similar Fast Service

LUXURIES and speed are among the prime requisites for a fast cruising boat in these modern days. Foremost in the attempt to supply these requirements are the 39-foot Seagull sedan cruisers as built by the Robinson Marine Construction Company. The speed requirement is met by an ability to do readily from 30 to 32 miles per hour, and in order to make this possible a choice of power plant equipment is permitted. Either the big Hall Scott or the Sterling marine engines are capable of producing this speed, and the action of the boat is so smooth and effortless that it can be compared to flying in a plane rather than gliding over the water.

The arrangement of the boat introduces the luxury feature, and there are four roomy pullman berths which may be quickly brought into use at night, and which can be entirely folded up during the day time to provide additional floor space in the cabin. A roomy galley is close at hand and contains all necessary equipment to prepare adequate meals. The handling of the boat is arranged in the forward portion of the sedan enclosure where the helmsman can operate the boat at high speeds with the facility and ease of the swiftest motor car. An additional cockpit in the stern is open and provides for additional guests in wicker chairs and a roomy, well-cushioned seat.



The absence of spray when running at full speed indicates a well designed hull which planes readily



E. Levick

CRESSIDA—A TOPSAIL SCHOONER

Combining Yacht Luxury and Beauty with Big Ship Sturdiness
Herman Oelrich's New Yacht is Well Suited to Off Shore Service

Cressida's dining room is located amidships. The spaciousness and attractiveness of appointments is typical of every room throughout the yacht. The design was prepared by Cox and Stevens, naval architects of New York

The illustration above gives an excellent idea of the beauty of the craft under sail. She is topsail schooner rigged and powerfully sparred for rough weather. She is 172 feet in length and 28 feet in the beam

Ample deck space is provided for handling gear when the boat is under sail. This deck view shows the small house amidships and some of the deck equipment all of which is electrically operated from the diesel generators below.

Owner's quarters include a comfortable library, located on the berth deck aft. Adjoining it, and connected to it are two owner's rooms, each with separate bath. Several guest's rooms and service rooms are also provided

Close-up of Princess Louise Inlet Falls

PRINCESS LOUISE INLET A CRUISER'S UTOPIA

How Skipper M. G. Shain and Two Seafaring Mates Cruised with the Trim Ship Trimmer Along the Picturesque British Columbia Coast

Part I

IN THE briny hearts of Skipper Shain and his two seafaring cronies there was a glad feeling. Why, you ask? Listen folks, they were leaving on the morrow for the land of peace on earth and a Corinthian's paradise, that world-famed cruising Utopia along the rugged but majestic British Columbia coastline. Princess Louise Inlet, Jervis Inlet, Howe Sound were all on the program. Shain and his deep water pals had a month off from the grindstone of life and were going to explore those inlets that beckon one on and on with an urge that no salt-blooded mariner can resist.

All details had been arranged. When three old shellbacks have cruised together on many, many stimulating voyages it's a cinch they have that offshore spirit and know how to get along in the fo'c'sle of any shallop. Skipper Shain is just a real sailorman and a good fellow; a square shooter, fine yachtsman, and a better boat builder. Truly, he knows the boating game, as his string of championship cups will substantiate. First Mate Lawrence Baungsguard was another good egg; had lots of nerve and was a skillful navigator. Chief Engineer Gene Anderson may have a Swede's handle, but he's a scrapping Irishman from Cork. All were officers? Yep! No crew needed on the good ship Trimmer with three gold braid men to guide her destiny.

Trimmer is an even twenty eight feet of cruising comfort. A home that floats, describes her arrangements. She has nosed her way through some of the

Just a few cottony clouds scudding across the summer sky

wildest gales that ever wind did blow. She measures about five and one half feet in beam and draws a couple of feet of rolling blue. She's planked with one inch cedar, Port Orford brand, and is stuck together to stay put. Her power plant is a sixty h. p. reliable Winton that spins her along fifteen per through moderate seas or high water.

It wasn't anything new for Skipper Shain to chug to the Ballard locks, fill out the clearance papers, then drop down, down, and down into the sky-blue waters of Puget Sound. No sir, it was the same old story; he's done it year after year with every kind of a ship from an 1898 sailing craft to a twentieth century cruiser de luxe. There is something up there along the British Columbia coast that brings them back; sooner or later those who once have felt that irresistible call come back to view God's marine paradise just once more.

Eagerly the trim white ship danced over the water of Shillshole Bay and chugged on her course. Overhead spread just a clear blue sky without a cloud formation to be seen anywhere. Green-blue waves curled before them, and everywhere they gazed the green shimmer of water on wooded shores met their eyes. The smell of brine from the flying spray was a tonic, ask any old salt who knows what the call of the sea means. Ask Shain, he knows the sea like you and I know how to add two plus two.

Their reliable engine just hummed a soft, low hum and steadily drove them on their way. A slight breeze set the Seattle Yacht Club burgee fluttering, while at the stern the American ensign waved a parting salute to the gulls.

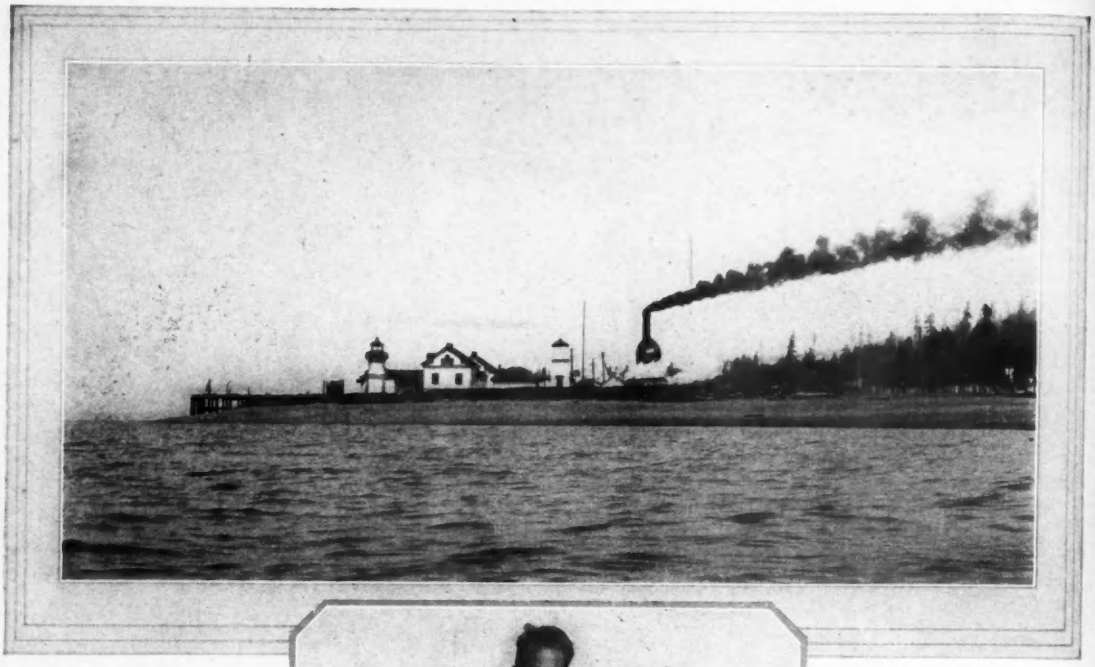
Joyfully, Larry held the ship on her way over the rolling swells of Puget Sound. Four bells the white ship was abeam of Possession Point, southern tip of Whidby Island. Around Possession Point is, a real Washingtonian will tell you, the finest trolling grounds in the world. Salmon trollers go there in anything that will float. Yes sir, when the run is on they're there at the first break of dawn in the Western hills and don't leave until darkness sets down like a fog. Sport fishermen and commercial men crowd those glorious inland waters. The sharp, staccato snorts of saucy little outboards vie for prominence with the chug-a-lug of the low-geared, trolling motors. Those boats have personalities of their own. Grizzly old fisherfolk play the same game with young men in their teens.

Larry, at the helm, held her on the course and they trekked Northward. Hat Island abeam! It's a round cone that rises out of the blue sea, and is shaped very much like a man's hat. On, on and on! Happiness and keen contentment saturated their hearts. Three happy smiles were registered on three sun-bronzed faces as the ship danced over sparkling seas.

Whidby Island flanked the port; Camano the starboard. Calm, inviting seas urged them to cruise forever. The Winton cheerfully pounded out revolutions and silently, rhythmically, and gracefully the cruiser Trimmer headed on the northward cruising trail. They were bound for the home of perpetual peace, tranquillity and happiness. Princess Louise Inlet, that's the place of Heaven on Earth, and the Utopia of lasting peace for those who'd harken to the call of the sea.

Life is animated on the rolling blue. The roll of the ship, the tang of the salty spray, the honking of gulls, and distant wailing of a ship's whistle all have a meaning; a strange, weird meaning. Only a seafaring man can understand the jargon. It takes years before the mast to understand the deceptive moods and notions of the Sea Gods. Greek mythology tells us that Neptune was the God of the sea; probably he could unfold some of the mysteries of flying spray and pounding surfs.

The diminutive tugboat Western Star of Seattle came chugging down the straits and bore away for



Mukilteo light in the offing

Yes, we caught fish and ate them, too

Everett. Her engines spoke. Kachook! Kachook! Bells clanged as the hour was struck. She had in tow a gigantic raft of Washington firs, bound perhaps, for the Everett lumber mills. Skipper Shain spoke the Western Star's Old Man and he returned the tradition of the sea.

Skagit Bay ahead! Larry swung her around Point Demock and stuck her nose into the rolling billows of Skagit Bay. Ah, when the season is on, those mallard hunters flock to Skagit in regiments. They come with outboards varying in age and usage from the time of Sheridan's march to the sea, up to May 1st, 1929. Boy, those hunters are all set when they reach the duck region; ready for a gentle bombardment.

Larry followed the course Skipper Shain had laid out and everything hung high. Deception Pass! The bird who named that raging, spitting cauldron of boiling blue deserves recognition. He surely labelled it with the right handle. Yes sir! Deception Pass it is. Many a cruising man, bound for the San Juan Islands or British Columbia, invariably reaches a stumbling block when locating Deception Pass on the Coast and Geodetic map. They get off from their charted course among the maze of small islands. Once they have found the channel, their troubles just commence for it takes power to buck that fast-flowing gorge when the tide is running. Like Cal though, the tide, at times, chooses not to run, and then the cruising man has a fighting chance with the eddies and tide rips.

Tides churn through there with terrific speed and nearly every ship going through takes caution by the forelock and waits for slack water. Trimmer was no exception! Within a second or two of when the tide tables indicated slack water, Gene eased her into the inferno of eddies, advanced the throttle and they went careening through. That's a thrill. Perpendicular walls of basalt rock line either side of the narrows, while strange growths of plants and trees are solidly entrenched in the rocky crevices. On their larboard, high above the rocky shoreline, could be seen the remains of a former quarry. Inmates of the state prison formerly were engaged in breaking rock but several years ago the site was abandoned.

With just the low, even hum of the ship's motor for company, sailors three winged her out of Deception and entered Rosario Straits, named in memory of a Castilian explorer. There are many Castilian names up there in the San Juans. Spanish and English names scintillate in that neck of the Pacific Northwest. And those islands, they're worth the price. Truly, they're the land of perpetual, everlasting joy. Some day, when I'm through the grindstone of life's racket, I'm going to live in the San Juans and just cruise, fish and live. YES, LIVE! That, to me, would be Paradise Regained.

Why they stopped at Rosario Beach doesn't matter but it was primarily to try out Gene's camera. They met a Mr. Harris, owner of the public campground

Grim fishermen brailing a trapful of Silver Horde

Trimmer in one of the coves of Jervis Inlet

et cetera of Rosario. He was interesting. Harris rented rowboats, outboard motors, fish lines, cabins, groceries, and service. He was obliging and would do anything for customers. With every deal he makes he gives free a history of the San Juans from 1492 up to the present day. He vividly presents the 54-40 fuss of yesteryear, and proudly says that he's one of those who is an American by the skin of his neck but is d—d proud of the fact. Knows the history of the Pacific Northwest in chronological order. Draws a graphic picture of Captain George Vancouver, Peter Puget, and other red-blooded explorers who wrote history in red ink. Harris always smiles and has more friends than Rockefeller has dimes. Says he has lived in that country for four decades and doesn't worry over anything; except—except—his outboard motors. Whenever his outboards don't perform with clocklike precision it worries him.

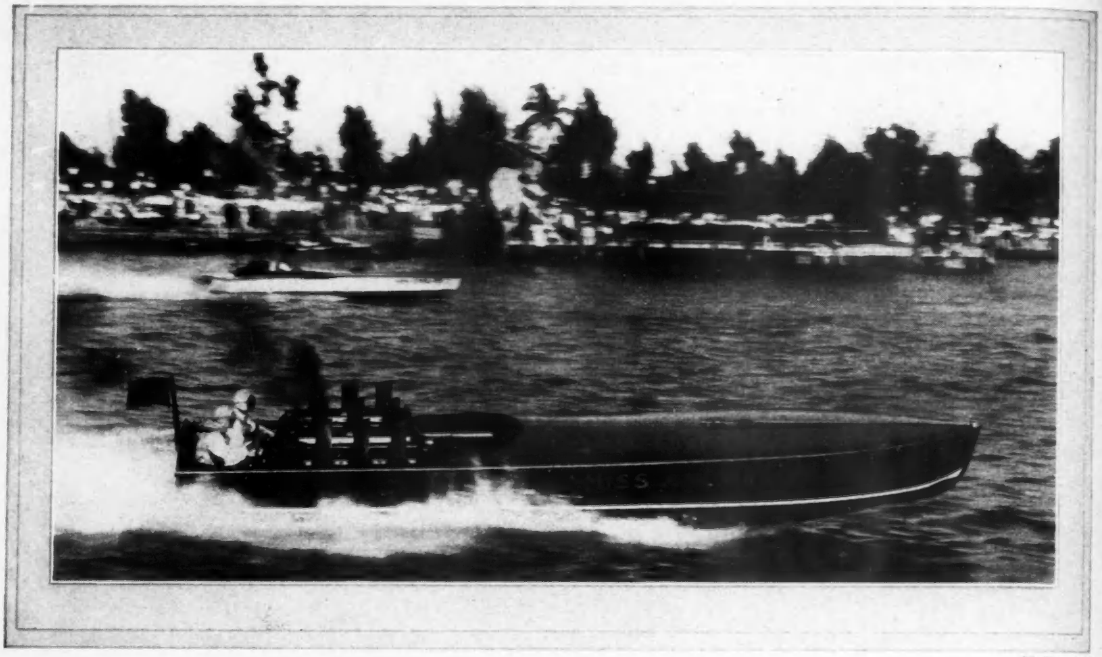
And so it came to pass that Harris was worried the day Trimmer docked. Shain soon curbed his worry. Harris complained of wearing out one quarter gross of starting cords and then said the contraption would'nt start. Shain cleaned the screen on the carbureter—one pop—Bang—it went. Harris smiled, a genuine, wholehearted smile. He offered the Skipper cigars, cider, Scotch, or an acre of ground. Skipper smoked a White Owl and they were friends.

There is something to that ardent craving and bewitching call of the wild. Yes, there's a thrill to poke the nose of your cruiser into the bays and inlets where intrepid Spanish, English, or Italian navigators made history back in the colorful ages. The sounds and sights thrill one; nature beckons him on and on; it's that ardent love which has grown with you since you were a kid and wanted to see what was around the bend in the creek. Same old story, folks, just told over again on a larger scale. Those childish intuitions stick with a man. Shain says that the cruising game calls him persistently, insistently; he dreams of it and lives on it, until finally in the spring his business is managed by partners and he spins away for the land of heart's desires. Truly, Shain admitted, a cruiser will take one from the heart of metropolitan Seattle to places where joy should be everlasting; places that God made for the seafaring man.

Gene's sharp ears picked up the reed horn on Smith Island wailing out its warnings and they found their estimated position to be accurate.

With a clear sky and favorable tide for company, Trimmer weaved on its way and presently Skipper changed the course to enter Thatcher Pass, a scenic strip of blue separating Lopez and Blakely Islands. Odd formations of rock rise sheer out of the blue sea, reminiscences of the glacier which passed over this section of the North American continent.

Another half hour of cruising and Orcas Island hove into view, with East Sound lying dead ahead in East Sound Channel. Orcas Island (*Continued on page* 76)



M. Rosenfeld

Miss America VII, driven by her owner, Gar Wood, which in the mile trials set up a new world's record of 93.123 m. p. h. Her power is two 1100 h. p. Packard motors

MIAMI BEACH HOST TO INTERNATIONAL YACHTSMEN

New World's Record Established in Unlimited and Outboard Classes—Greatest Regatta Ever Held

(See Summary of Results, pages 150, 152 and 154)

ENGLAND, after many years, has finally demonstrated that her boats may soon become real contenders for the world speed records on water. Not since Gar Wood brought the Harmsworth trophy, representing the speed championship of the world, to America nearly a decade ago, has any speed boat from abroad been able to make even a respectable showing against the craft from Detroit. During the ten years that the trophy has remained in this country several contenders have been sent to this country in an effort to lift the cup but all have been dismal failures.

The Cubans at the races entertained by Commodore Schantz. Left to right, Messrs. de Bustamante, de Rajas, Schantz and Posso

The recent races at Miami Beach, Florida, demonstrated that the art of boat building in England has changed considerably of late, with improvements in design and methods of construction and that by another year results should be forthcoming which will make the designers, builders and sportsmen in this country show every bit of their ability in order to retain the world's speed supremacy.

Probably nothing which has happened in recent years has given such an impetus to the sport of international motor boat racing, both from the viewpoint of the racing man and the public alike as the visit of Major H. O. D. Segrave and his party to this country this winter. While Major Segrave's boat, Miss England, did not have the speed of Commodore Wood's Miss America VII, yet he was able to win the match race between the two boats by winning a first and second place which was better than Commodore Wood's first and no second. Major Segrave's victory has given encouragement to the entire world that Commodore Wood can be beaten. Already we have assurances that there will be several English high speed boats racing in this country next winter. Thus real competition will be possible, which is not possible when only one entry from each country competes. Generally one or the other of them meets with some kind of a mishap, competition vanishes and the race from the public's standpoint loses interest.

Miss England, Major Segrave's boat (which was

Habana II, a 151-inch hydroplane, which showed up well, owned and driven by R. Suerra

Start of race for Col. E. R. Green trophy, which was won by Malcolm Pope

fully described in the February and March issues of MoToR BoatinG) came over as an experiment only. Her owner knew that from an extreme speed standpoint Miss America would be far superior. One had 900 horse power and the other 2200 horse power. Major Segrave built Miss England to test out and demonstrate his ideas so that, should they prove correct, he could build a much faster and more powerful boat in the near future. Due to the severity of the winter in England, the Major did not have an opportunity to even launch the boat before she was shipped to America.

In Florida, several weeks before the Miami Beach races, the boat took the water for the first time. However, from that moment until the big race, her owner constantly experimented with hull and power plant, changed propellers, angle of planes, etc., etc., so that her speed was increased from around a mile a minute to an unofficial 88 miles an hour at which speed Major Segrave claims he was able to clock his boat on a mile straightaway course. Such a speed is sufficient to make any boat a real contender for world's speed boat honors.

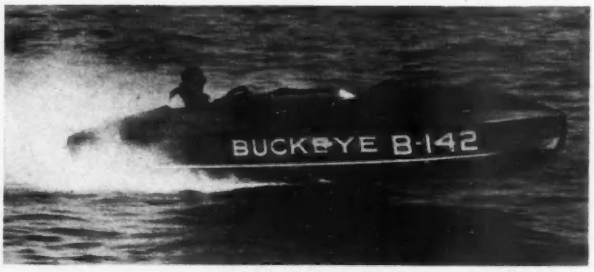
About the race itself there

Sparrow, an unlimited 151-inch hydroplane built by Hacker and owned by Elmer H. Johnson

Malcolm Pope of Winter Haven, Fla., with the Col. Green trophy which he won, representing the unlimited championship of the world

isn't a great deal to tell. It was over so quickly. The race was scheduled for two 12-mile heats, six times around a 2-mile course, rather a short lap for the contestants but admirable from the spectators' viewpoint. The settings for the race were brilliant and perfect. Never before in racing history had so many people been so closely banked around a race course. The warm Miami sun shone down on ideal water conditions. Hundreds of motor yachts and house yachts were anchored around the course. Not a patrol boat or Coast Guard cutter moved.

The course had been cleared of every form of floating object that might prove a menace to the frail racing craft. Fifty odd radio stations were on a nation-wide hook-up to tell the millions of people of this country who were listening in anxious to hear the running story of the race. Jesse Jay, the chief announcer, began describing the scene ten minutes before the big race started. Gar Wood made a round of the course at a mile a minute clip to try things out. He made the sharp turns beautifully, hardly slowing down at all at the two ends of the course. The crowd gave him a big cheer which he could not hear.



Buckeye, a new 151-inch hydro, designed and built by Cliff Hadley and owned by Gibson Bradfield, of Barnesville, Ohio

The five-minute preparatory gun sounded. A great hush fell upon the scene, not a sound could be heard even in the judges' stand except the click of the electric timing machine and the telegraph instruments giving the news to the world. The telephone at the judges' stand rang—England was calling to learn the result. But it was yet two minutes to the start. Miss England, on the course a half mile or so from starting line, started her motors with a big roar. Gar Wood moved over a little closer electing to give Miss England the pole or inside course.

"One minute to the start," yelled the timer. The big 10-foot clock facing the contestants on the judges' stand started to move to indicate the last 60 seconds. Fifty, 45, 40 and finally 30 seconds to go! Both boats were approaching the line side by side. It seemed as though every motion picture camera, every movietone and every still camera in the country was pointing boatward. With ten seconds to go both boats opened their throttles and came roaring down to the starting line. When the starting cannon banged neither boat was a foot away from the line. The judges could not say which had the advantage at the start.

So far everything was even. But it did not remain so for long. By the time the first turning buoy was reached Miss America, on the outside, had the advantage by several lengths. Then Commodore Wood, with his clever and characteristic driving skill, threw the bow of Miss America hard to the right, crossing Miss England's bow and causing this boat to sheer sharply to the left or to the outside of the course in order to clear Miss America's wake. This maneuver gave Miss America at least 10 boat lengths lead by the time the back stretch was reached.

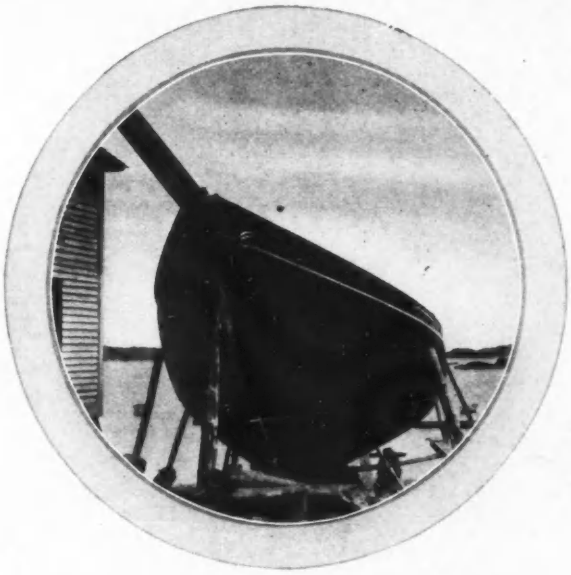
On the back stretch both boats had their first opportunity to open up and open up they did. While the difference in speed was not great, yet what advantage there was seemed to go to Miss America. At the upper turn Miss America continued to gain much to the surprise of everyone who had assumed that the smaller Miss England would be able to make the turns more readily.

Miss America completed the first two-mile lap in 1 minute, 50.85 seconds. Miss England came along just 7 seconds later. Miss America's speed for the first lap was 64.952 miles per hour.

On the second lap Miss America VII continued to gain although Major Segrave in Miss England was driving a beautiful race. He seemed to be a trifle careful of his boat at the turns cutting down his speed to around 40 miles an (*Continued on page* 144)

A GROUP OF PROMINENT PEOPLE AT THE MIAMI REGATTA

Front row, left to right: Mrs. Warwick Wright, Mrs. Gar Wood, Mrs. W. F. Sturm, Warwick Wright, William G. Sturm, Mrs. H. O. D. Segrave, Mrs. Noel VanRaalte and Noel VanRaalte Back row: Gar Wood, Major H. O. D. Segrave, G. H. Phelps, Lord Brecknock, Ferd Nordman



On the ways before all her paint had been laid on made her look seamy

TO TWILLINGATE FOR A BOAT

An Amateur Crew Starts the Trip from Newfoundland But Bad Weather Stops the Journey. Finally Completed in Winter Storms By a Real Sailor of the Old School

By GORDON P. MANNING

Part II

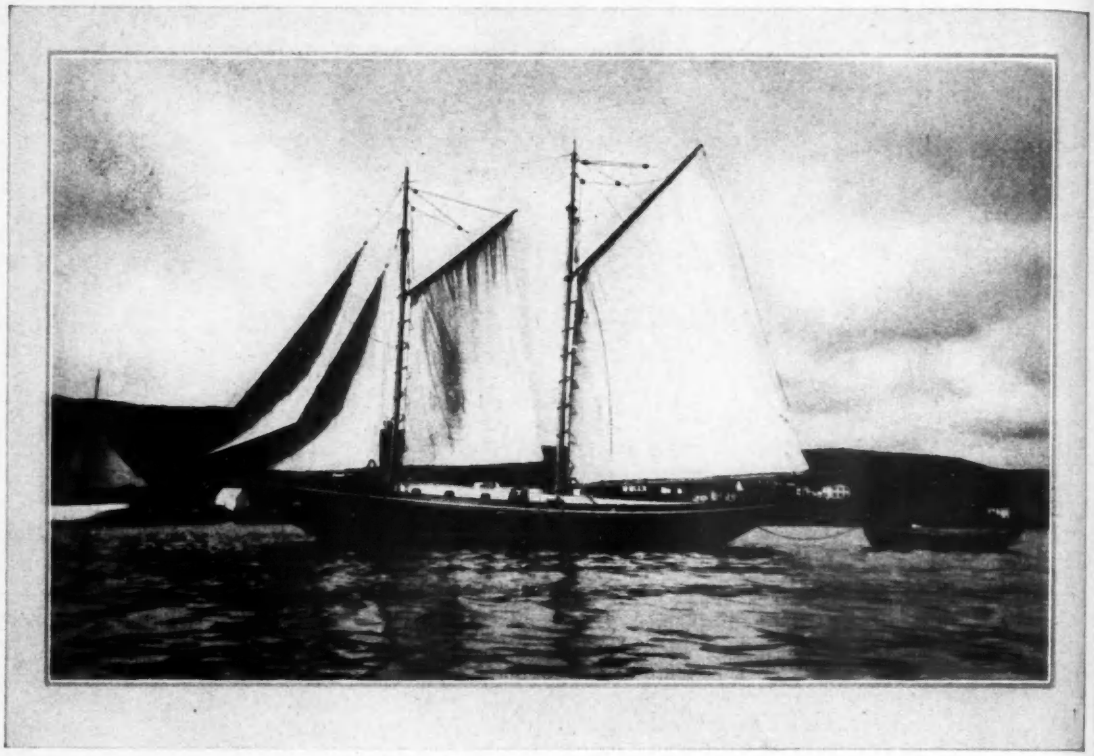
WE couldn't believe that the day had finally come when we should leave this little town of Twillingate. But that day came, and we found ourselves with nothing to do. We decided to sail as near noon as possible and make a short run of forty miles to the next harbor before nightfall. We were going to make daylight runs, for sailing this coast was not a thing to be done after dark we were warned. Then too, we had never given our compass an accurate checking. We would keep land in sight at all times. And so play safe.

Was everything aboard? Of course it couldn't be that we had remembered everything. That would be too much to expect from a bunch on their first cruise. So many last minute things to attend to. Here it was one o'clock and not away yet. "Well let's get to the anchor, boys, tie the dink astern for now." We were interrupted at this stage by the arrival of the Magistrate and his family. They approach us by dory. He has issued our clearance and we have struck up a friendship with him. They have brought along no end of food for us to take along. We believe in good faith that he has come out of love, rather than for a last look at us before we are found on some rock strewn shore. He is a very honorable man. But he delays us fifteen minutes.

Well, the anchor is up and we are swinging slowly down the harbor to its mouth. The whole town is out to see us off, and it is truly as if they had all had a hand in building her. They are all so interested. Union Jacks are flown from all their poles and as we glide along we see white figures in nearly every doorway along the shore. They are waving to us. We say goodbye to these good hearted folk with three booms of our little cannon. It is one forty-eight P.M. Atlantic Daylight Time, and we sail out into the open sea.

Five forty-eight Atlantic Daylight Time finds us just three miles on our way. The wind had died and left us ungracefully slatting about on the long greasy swells. And now, because the wind is picking up a little, we do a very foolish thing. We decide to hold on our course and make for our objective. Perhaps it was the ignominy of returning from whence we had just sailed so proudly; perhaps it was the thought that we were sailors; or perhaps we just didn't think about the consequences. Anyway we hung onto the tiller and let her go away on her course. This decision brought with it a few perplexing problems as you may imagine. How were we going to make our harbor after dark, on a strange coast? According to the chart there were too many rocks for us to really consider it feasible. How were we to know that our compass was correct. Now if ever we would have good use for it. These questions came to us as darkness fell, and the rising of the wind was appreciably noticeable. But we had carried things through to this stage and we doubted not our ability to continue some way or other.

In consultation we agreed that the best thing to do was to hold off shore, well outside our objective for the far side of the great bay which we were crossing. Some hundred miles to this opposite shore our charts showed. This would leave us a clear course for the night excepting for one island which lay directly in our path. This had a light on it and we would use that as a point to head for, giving it plenty of berth



Maybelle as she arrived in St. Anthony's after her hundred and fifty mile jaunt

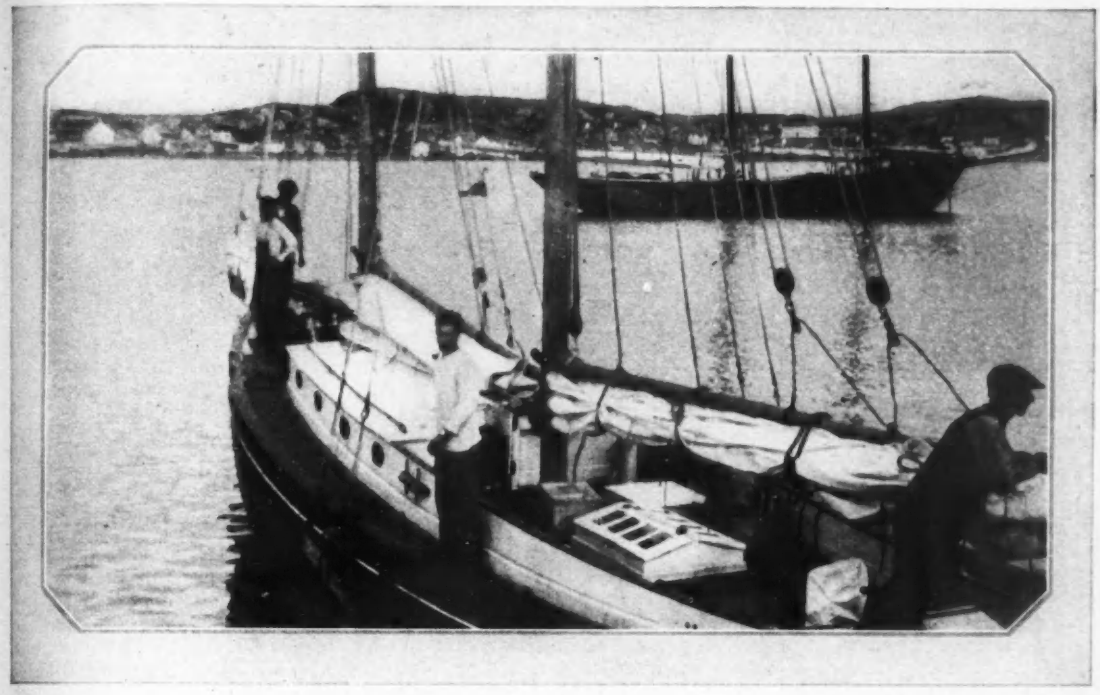
when we came up to it. Now it so happened that I was able to get a range on the harbor light directly astern of us, and I made a crude correction to the compass. It showed our deviation to be about 32 degrees on that course. So we headed her off accordingly. In about three hours time with this wind we figured we should be up with the island.

At eight o'clock the wind was coming across our stern with a force that made the white foam curl at the bows. Cool creamy suds slipped silently away astern. Very new to us and novel, and we were fascinated by her speed. The sky took our attention from this endless panorama. It had gotten dark by this time, but it was too dark for an ordinary night. There were no stars out, and low gray clouds were scudding about in a threatening sort of way. The wind's roar rose to a pitch that was most trying on nerves; an uncomfortable minor note of some sort.

"We're in for some rain" said Ray "and I think it will be with us most of the night." He was quite a prophet—it turned out even as he had said. The rain came about half an hour later, and it did not come unaccompanied. Came with it the fog. Not the real pea soup type, but that gauzy, misty kind which is a younger brother of it. All it did was cut our visibility down to a few yards. This came on the heels of a blast of wind which made the good ship heel more than we had ever experienced before. She was logging over seven knots now, and for her that is fairly fast as she is very short on sail, as I have said. But it was perhaps a good thing that she was thus short. It certainly saved us from taking in canvas that night, and by all the signs that would have been a pleasure which we were mighty glad to forego. Several times during the night we seriously debated the question, when she seemed nearly to be getting away from us. But each time we said: she's built for just this, let her do it.

From the foremast the climber is rewarded with a jumble of things. The deck is indeed broken up according to this picture

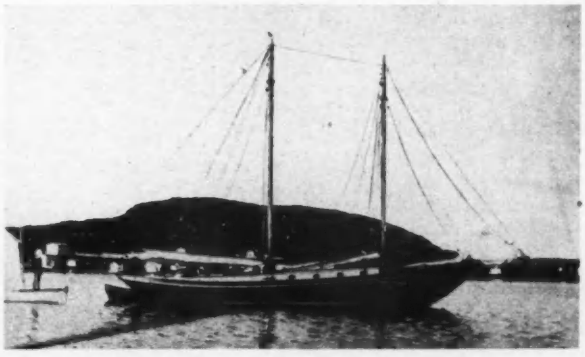
We were plunging along into the night now with absolute blackness on all sides of us. We could just discern the bowsprit ahead, no more. The wind drove the rain against us with such a force that we shivered in spite of all our sweaters and oilskins. Not a light was visible save the little yellow flicker in the binnacle. To port at a distance of about ten miles lay the jagged shores of the Newfoundland coast. Ahead some five or six miles lay an island with a light on its top, said the chart. We could see no light, though. To



Just after her first trial trip. Sails snugly furled, and workmen waiting to be paid off. The boat was finished

starboard stretched the Atlantic for some two thousands of miles. I ought to explain that the reason we were heading so close to the island was that if we missed it by too much and held on that course, we should not find land next morning but the Atlantic ocean.

Naturally our attention was all concentrated in one direction, ahead. We peered into the gloom for even so much as a flicker of that light which must be burning on the island top. Of course the chart might be an old one, and they might not be using the light this year, I thought. But I didn't get a very calm response to that thought. I began saying to myself; it must be there. Suddenly it came—just a glow for a fraction of a second, high up in the air. It was supposed to be 550 feet above the sea. Could it be then, that we were almost upon it? Never before or since have I had the same awful thrill that I had that moment when I saw a light dead ahead, suspended, it seemed in the sky. Then it disappeared, and we were left with our thoughts. I knew our dead reckoning wasn't very accurate because of the currents which work about that shore



Awaiting a fair wind, the Maybelle at anchor, St. Anthony, Newfoundland

Before I could stop myself I had put the wheel down and swung the ship off several points to starboard. And so we sailed. Every once in a while we would get a glimpse of the light, still on the port bow. We couldn't shake it; we couldn't seem to come up to it. It was most unreal. We must have sailed in this tense manner for close to an hour before we got her definitely abeam. Another hour and the light was slightly astern, and we knew we had safely rounded the tip of the island. You can well believe that we relaxed. That is, as much as we could, while driving through the black at the same old clip, with every inch of her canvas drawing. It was still not a very comfortable situation that we were in. And I think that there were those of us aboard who perhaps pictured in their mind's eye the exquisite pleasures of terra firma just about this time. I don't know this, however.

To those of you who may have cruised the Newfoundland coast, you will remember that Nature has given them something very distinctive. Something the southern countries cannot boast of when the heat of summer descends upon them. I mean the icebergs. These come down from Labrador along the eastern coast, melting usually off the southern tip of the island where the Gulf Stream hits them. In our present position, we aboard Maybelle were right in their path. And they were big fellows up here, too. As we had planned entirely on daylight cruising we had never once bothered with them. But now that we had decided to race on in the dark it gave the situation a different aspect.

After we lost our island worry, I suppose I must have been casting around for something else to look

after, when the bergs suddenly came into mind. I stood still in my tracks. I had forgotten them until this minute. I peered ahead. Can you not see, as I thought I saw, a huge gray white mass looming up out of the dark before us? Who can forget the picture of the Titanic?

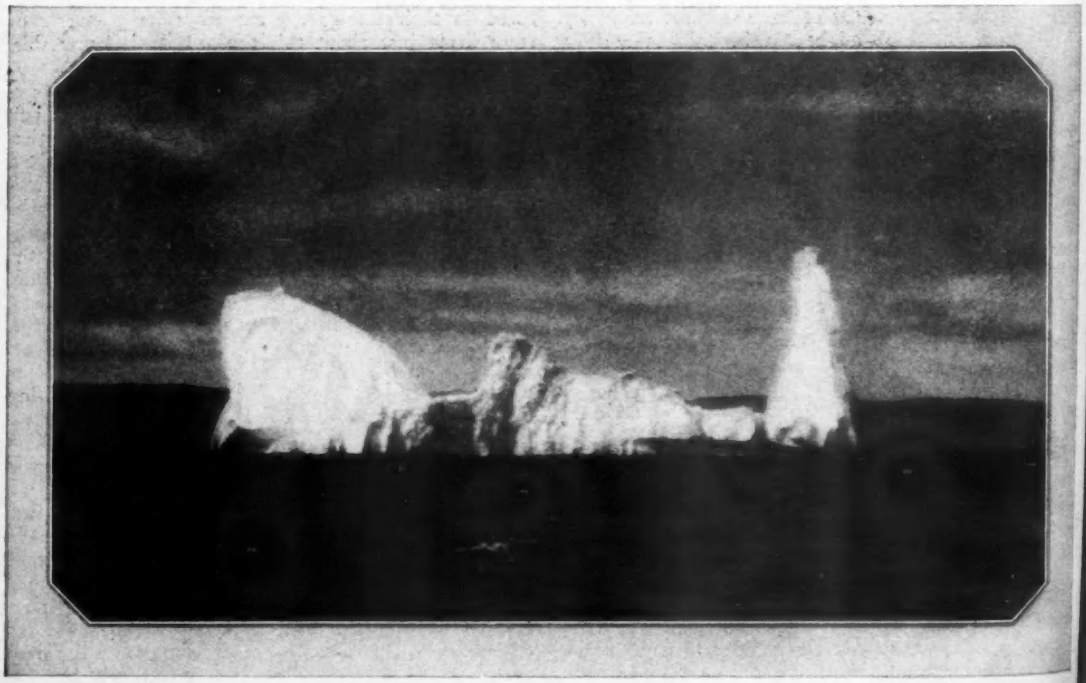
I think that part of the thrill which comes from taking a ride in an airplane is the presence of that same feeling; namely, wondering whether or not you'll get back to earth in good condition and all. Perhaps there was some of this feeling in me as I stood by the wheel staring ahead into nothingness. Maybe this was something like an airplane ride, and there wouldn't be the pleasure unless there was the uncertainty and doubt about the outcome. But in airplane riding you always put your trust in some one who knows his machine and what she'll do. I had no such place to put my faith. And so I ask you, if such experience as this doesn't tend to make a man a sailor, then I'm wasting my time, I guess. I hope not, however.

The first big splash, when the cradle hit the water

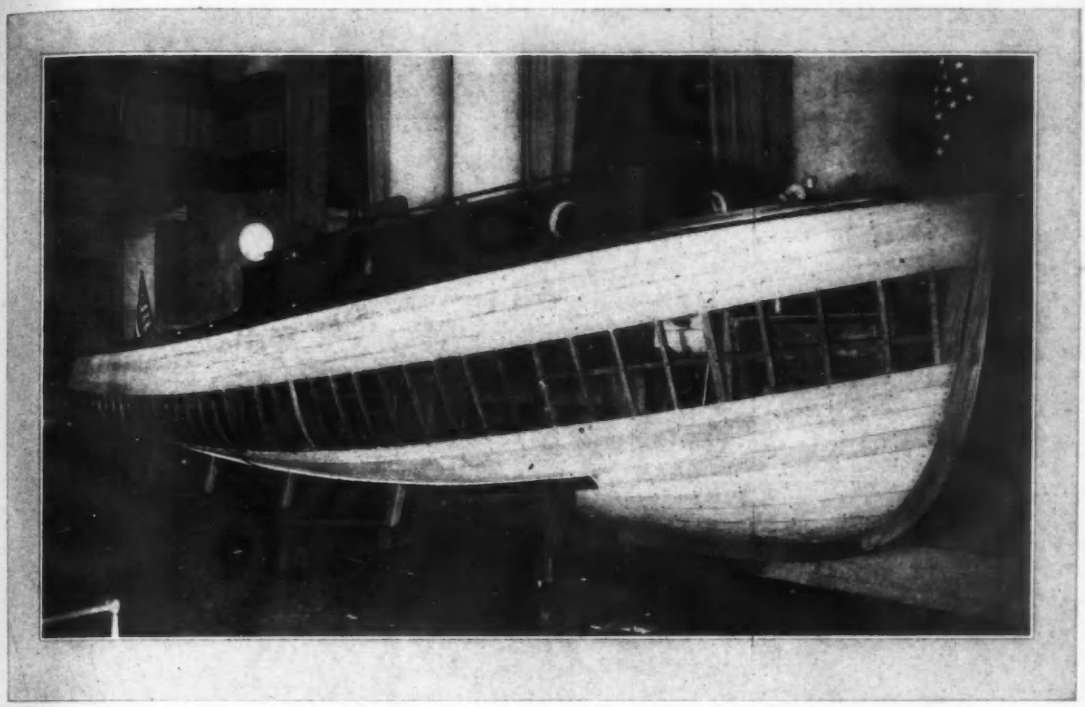
The best part of it was that the other boys hadn't thought of them yet. And as long as their thoughts didn't tend in that direction, I wasn't going to lead them there. There was no need of the four of us remaining on deck, so we broke up into two watches. Two went below for a little much needed rest while Bill and I remained on deck; our first watch. Still the rain came. Try as we might we couldn't find a comfortable position which would keep us dry. We were gradually assuming the consistency of a damp sponge. The binnacle light by this time developed a case and would not stay lit. Five times I carried this light up from the cabin and four times it blew out as I placed it in the holder. Meanwhile the helmsman was trying to hold the course with the aid of a flashlight and a little intuition. The running lights had long since been given up as bad jobs. And will you believe it, I found one of them bone dry the next day. It had burned in spite of the wind, all through the night. That's something for Willis's lights.

When midnight came we were glad enough to go below and get dry and warm. I don't believe I had hardly crawled into my bunk before I heard Ray's voice at the companion. "It's two thirty and we're all pooped out, come on up on deck and take the wheel." That was the world's shortest sleep as far as I'm concerned. Their watch wasn't over but the handling of things had been too much for them, and so we again made our way on deck. And it is pretty hard to turn out into dirty weather at that hour, we found out. They went below.

Dawn can be mighty slow in coming if you are counting the minutes, so to speak. And this morning was no exception. But it finally came, or sneaked in on us, is better. It was the grayest looking situation I've ever seen; needless to (*Continued on page* 108)



An iceberg at a few hundred yards. Coasting down the Newfoundland shores these were frequent sights



A cut away portion of a cruiser hull showing the bulkheads on the interior, the frames, and partially completed planking

WHAT THE NOVICE SHOULD KNOW

A Descriptive Series in Which the Beginner Will Be Carried Through Many Stages of Boating. Features of Construction With Reasons for Many of the Parts Used

By W. H. KOELBEL

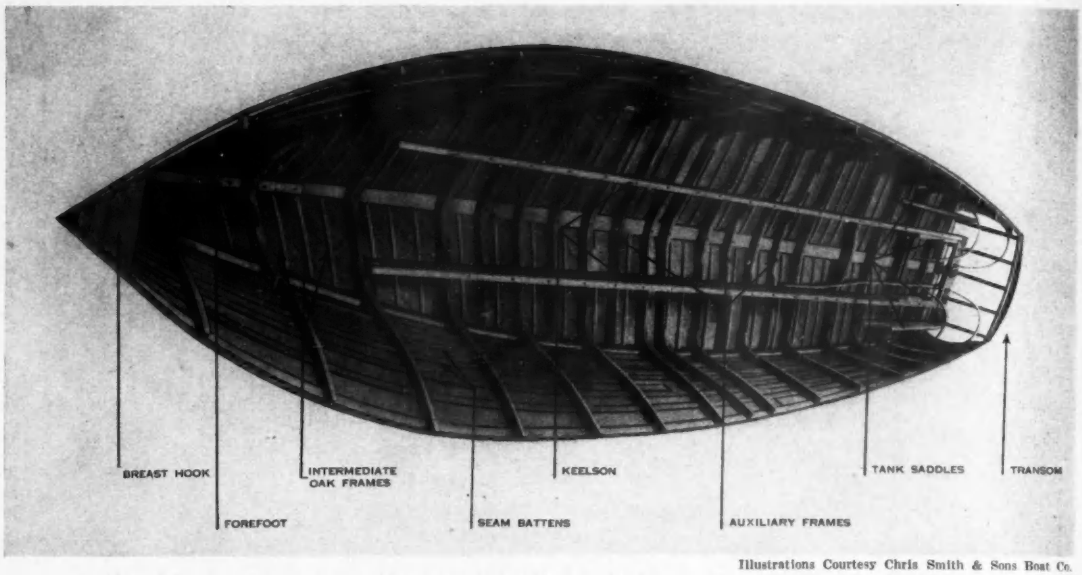
PART II

IN THE previous article we tried to give the newcomer to the boating game a sort of general acquaintance with the various kinds of craft with which he would be likely to come in contact in the pursuit of his new sport, and the use to which each is best adapted. Equipped with this preliminary information, he has had an opportunity to give a little thought to the selection of a type of boat which would most nearly fill his requirements.

Now there arises the problem of the actual purchase of some particular boat and he wants to know just what points to check up on in order to determine its value. However, before he can go over a boat intelligently and pick out its good points, he must first have a general understanding of the way it is constructed and know what part each member plays in the whole structure. We can cover this without going into too great detail and still get a fair idea of how our craft is put together.

In the first place, a person unfamiliar with boatbuilding methods is very likely to judge a boat by his knowledge of house carpentry, but he very soon learns that there are few points in which the two follow the same principles. Each has its own particular set of conditions to meet, and this necessitates different construction methods. So he must adjust his ideas and know what strains and stresses a boat is subject to in order to understand the reasons for the way it is built. The boat that has been built by the house carpenter without boat experience always stands out among a fleet of yachts as an eye-sore. The liberal use of the square is always in evidence and the awkward lines are all the more apparent because the graceful, curving lines of the average well-designed boat are so pleasing. In applying the planking, he has often attempted to make square joints as he would on his house, or else he has beveled them the wrong way so as to have nice, tight looking joints from the outside but has actually succeeded only in producing a job which is sure to leak. Then again he may have made use of iron fittings and fastenings, unprotected by galvanizing, or else a combination of iron and bronze side by side under water, either of which practices would be sure to prove entirely unsatisfactory. And so, throughout the whole craft, there are pitfalls awaiting the inexperienced boat builder, and the purchaser of a boat must be careful that the one under his consideration has not been turned out by such a person.

First of all, a boat must of necessity be built so as to be water-tight. At all times while she is lying in the



Illustrations Courtesy Chris Smith & Sons Boat Co.

Looking down into a runabout hull showing particularly the keel and engine stringers, frames, battens, etc. on inside of boat

water, there is a steady pressure against her bottom and lower sides, and unless care has been used in the fitting of planks and caulking of seams, troublesome leaks develop. Under other conditions, such as when the boat is heavily loaded or is being driven into heavy seas which sweep the whole boat, it becomes equally important that all other parts of the craft are watertight, such as decks, cabins and sides of the hull.

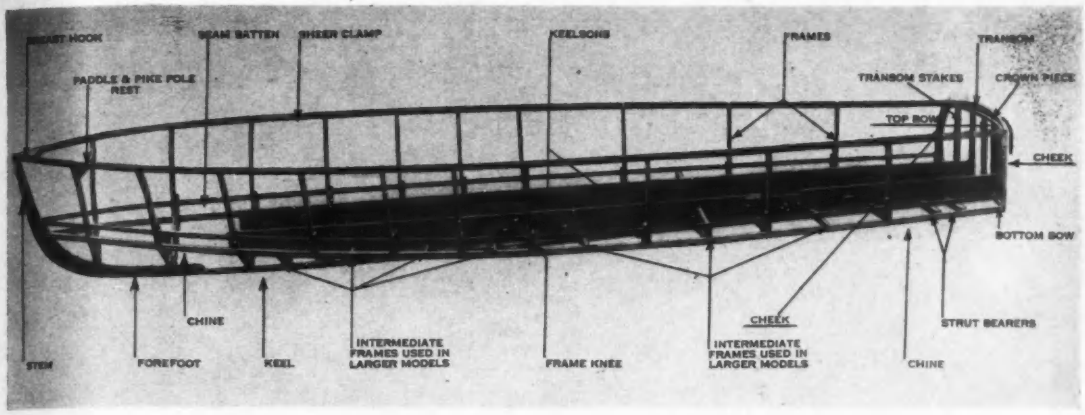
Great strength must be secured in proportion to the weight of the material used as it is essential to keep the weight of the boat down to a point where its buoyancy is not materially reduced. It does not follow that the heaviest built boat with the largest timbers is the strongest or most seaworthy. The double-ended whale boat used in the old days of the whaling industry was proverbially one of the most seaworthy small boats in which sailors trusted themselves to the open sea, yet its planking never exceeded a half inch in thickness and other parts were correspondingly light. Design, selection of materials, and care in fastening are of far more importance than weight alone, inasmuch as the heaviest timbers unscientifically fastened are likely to fail at a vital point unless all elements in the construction are proportionately strong. For a given bulk, some woods are lighter and at the same time tougher and stronger than others, making them much better adapted to boat work.

While there is a certain amount of pressure exerted on the underbody of a boat while she is lying in quiet water, with a certainty of leakage at every point which is not absolutely watertight, the strains and stresses on the entire hull are tremendously aggravated when she is pitching and rolling in a seaway. When rolling sideways in a beam or quartering sea, there is a tendency to twist and work, and unless the boat is correctly designed and has rigidity enough to withstand this weaving, seams tend to open, and fastenings work in the wood so that eventually the general condition of looseness is so serious that the boat cannot be kept tight.

When pounding into head seas, where the boat alternately lifts part of its length entirely clear of the water and then drops it down with considerable force into the waves, the hull must take a lot of punishment and planking and frames must be stout enough to take this pounding. Under conditions such as these, the element of design plays just as important a part as that of strong construction, since a proper design will allow a boat to enter the seas easily and reduce the shocks of pounding to a minimum.

Finally, strength must be provided to enable the hull to stand the strains of hauling out and grounding. In the cases of boats provided with strong cradles and hauled out on a good marine railway, the wracking in laying a boat up is considerably reduced, but where owners of small boats do their own hauling out and have no special facilities other than block and tackle, planks, rollers and so on, this becomes an important factor. In the unfortunate event that a boat goes aground, she sometimes gets a pretty hard blow, and although it would be impossible to build a hull which would be immune to injury in piling up on rocks and reefs, yet the well constructed boat will suffer no ill effects from ordinary grounding, even though she may not be shored up at several points as might be desirable.

The entire structure of a boat might be divided broadly into three main parts—frame, planking and decking, and joiner work, consisting of the cabins, skylights, hatches, etc., which might be classified more or less as finishing touches. As for the hull itself, we start basically with a skeleton called the frame, of which the keel becomes the main piece or backbone. In small boats the keel is invariably in one piece, but in the larger craft, the difficulty of securing a timber of sufficient length generally makes it necessary to build this member up of several pieces by fastening them securely together with a well fitted joint called a scarph. There is no particular objection to this, inasmuch as the joint, if properly made, makes the timber practically as strong as a single piece. In either case it is essential that material be used which will give not only the desired shape but also ample strength to withstand the strains of grounding, hauling out, etc. Here the element of weight is not as important as that of strength, white oak and yellow pine being the



An outboard view of the frame of a runabout showing the names and relation of structural parts

material generally used for this structural member.

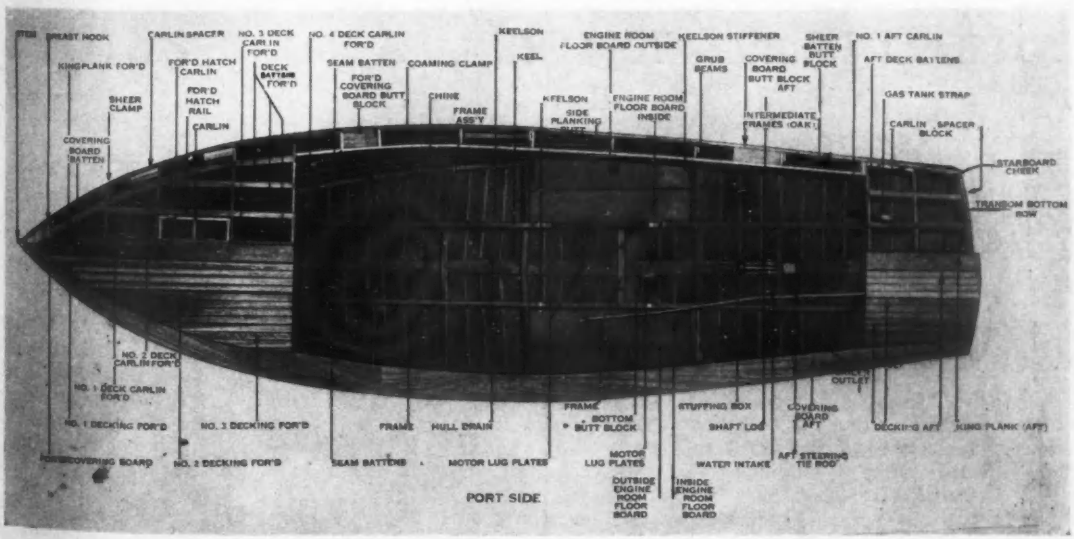
At each end of the keel there are erected two pieces which are securely fastened to it, the one at the forward end being the stem and at the after end the stern post. At joints such as that between the stem and keel, pieces of wood with a naturally curved grain are generally used to join the two for added strength. These stem and stern pieces might properly be indcluded in our backbone of the frame skeleton.

For ribs we have frames of wood placed at either side of the keel and joined to it at intervals for the entire length of the boat and so shaped that when the planking is fastened to the outside of the frames the finished hull will have the desired shape. The shapes of these frames may be secured in either two ways—by steaming and bending straight strips of wood or by sawing out the required shape. Bent frames have the advantage of considerable strength inasmuch as the grain is continuous for the entire length. In certain cases, such as the framing of small clinker built boats (which have the edges of the side planking overlapping each other instead of butting, to present a smooth surface) the frames are sprung in after the planking has been completed over temporary forms. In such cases the frames may be continuous from one side to the other instead of two pieces fastened separately to the keel.

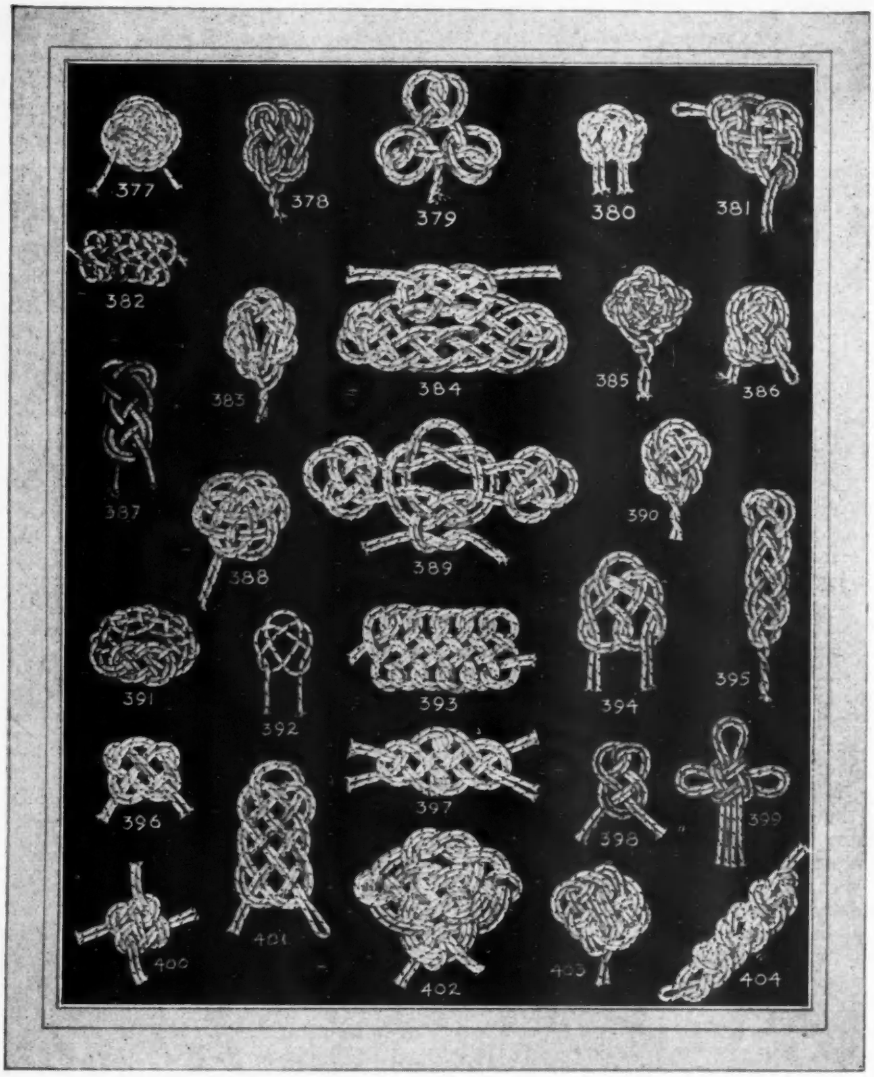
Connecting all the frames near their upper ends, a strip is run on each side from stem to stern known as a clamp. This serves to tie all the frames together but acts principally as a brace on which all the deck beams rest. At the lower ends where the frames meet the keel, vertically set pieces are run from side to side to tie the frames together. These are called floors, but have nothing to do with the function generally thought of in connection with a floor. Keelsons and keel battens are timbers run lengthwise above the keel and tied up with it for extra longitudinal strength.

Engine beds, while not really a part of the frame itself, might be mentioned at this point, as they belong more properly to it than any other part of the boat. They are invariably heavy timbers fastened either to frames or floors to form a solid foundation for the engine. In very small installations we sometimes see just two short pieces running fore and aft (parallel with the keel) and fastened to the frames. More commonly two heavy timbers are fastened to the bottom, running athwart-

(*Continued on page* 180)



A hull almost completed and ready for the engine and interior trim and appointments



PRACTICAL KNOTS AND SPLICES

An Excellent Treatise on the Art of Tying Knots and Handling Lines. Simple, Useful and Ornamental Rope Work of All Kinds Fully Explained and Illustrated

By CAPT. J. N. PATTON

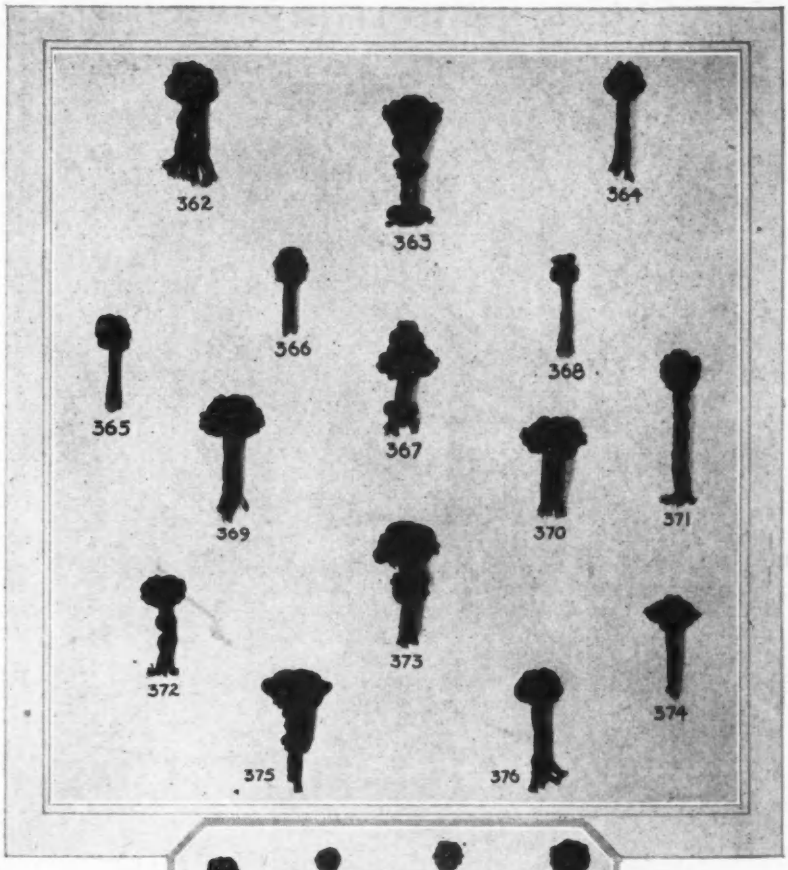
Part VIII

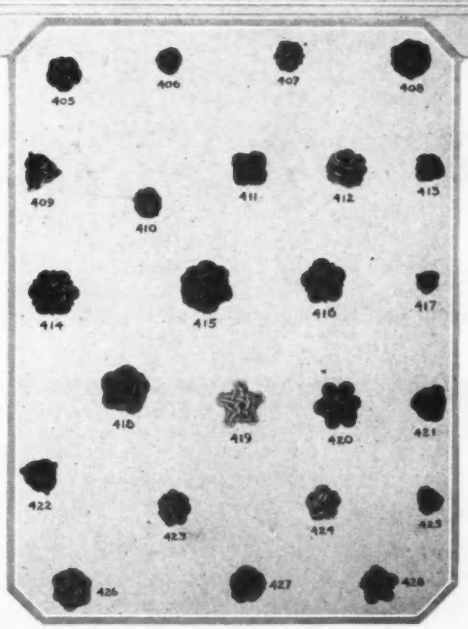
ALL knots, end and flat varieties, in this and the following articles are ornamental and can be used for many decorative purposes. If our readers will practice and master the end knots as previously explained, such as the Mathew Walker, single and double diamond, and star knot, they can by allowing sufficient ends add additional tucks, crowns and walls to these knots.

263. Six strand double diamond knot, crowned. With six ends of wire make a single, then double diamond, and crown with the six strands and tuck ends down through center of knot, or after making crown with the six strands, and tuck make a three strand crown on top of the six, using three alternate strands, tucking all six ends down through body of knot. This makes a pointed or rose bud type knot.

363. Side view of nine strand star knot, crowned on top. With ends tucked down through knot, then a wall and crown under knot and a single diamond knot.

367. Pineapple knot. First make a nine strand star knot and tuck ends up through body of knot and crown the nine strands. Then crown six of the nine strands and again crown three of the six. This





makes tapered crowns. Tuck all ends down through body of knot.

370. Seven strand diamond. With ends tucked up through loops three times, then crown to the right over 2 instead of over 1 and down through the body of knot.

371. Four strand double diamond crowned. Make a single, then a double diamond, crown with the four strands, and tuck ends down through center of knot.

374. First make a five strand double star and tuck ends up and out of side of knot between loop, then around each of the five points and into the knot, and up through the center. Then crown and tuck ends down through body of knot.

377. Three part rosette. First make a three strand Turk's head showing four laps on ends, follow around two or three times as desired and flatten, working all turns even. All of the flat knots on this plate can be readily copied with phone wire and followed around as many times as desired.

381. This is an excellent knot for the corners of frame decorations.

399. A double mast head or shamrock knot. With a piece of wire first make an overhand knot, right over left hand part, then tuck right hand end around and through loop of overhand knot, and tie an overhand knot in its own standing part. Now pull the three loops through the three center crossings of wire and you will have a single shamrock or mast head knot. With another piece of wire follow the first wire around again, pull tight and even. Many of the flat knots illustrated in this plate and in series 7 and 9 to follow can be used in making fancy serving trays.

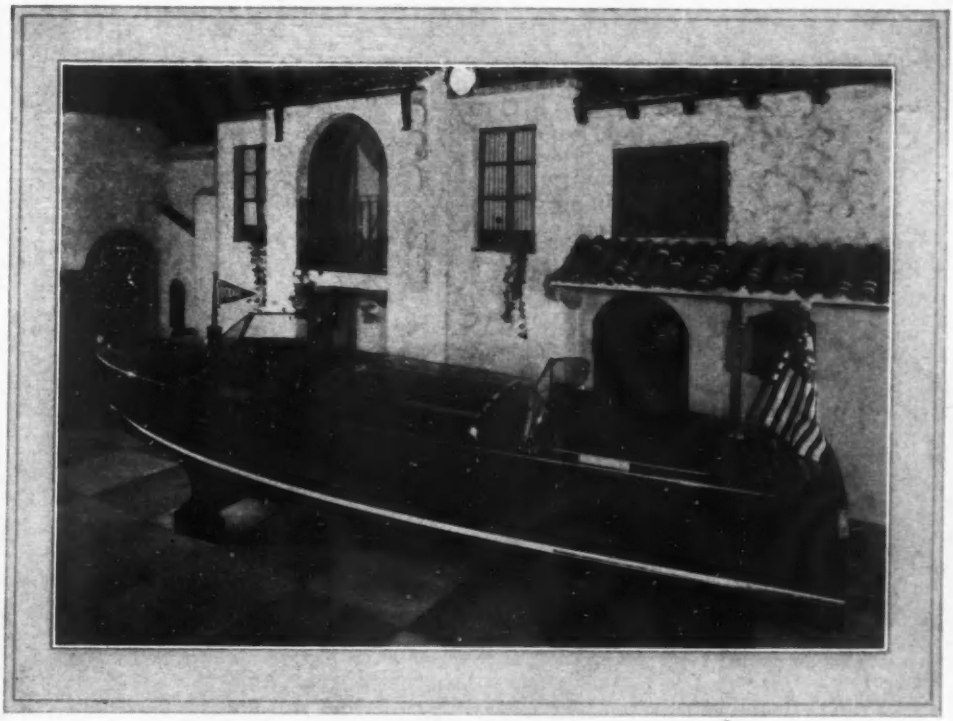
For example: secure a piece of mahogany, or any well seasoned wood that will take a dark stain 14 by 24 inches by ¾ inches thick or any size desired. Stain and varnish. Use hard lay 6 thread manila that has been drawn through gas flame to singe off whiskers, and round head 5/8 brass brads. First make a border using any of the flat knots or scroll work such as 393 alternating with 394 or 396 and for the corners 381 but do not use any knots with a thick body such as 399 or it will take too great a space under glass cover. Then finishing, (*Continued on page* 92)

WHERE CRUISABOUTS ARE BUILT

Enlarged Facilities Increase Boat Production of Popular Small Cruisers

The Richardson Boat Company plant where Cruisabouts are built. Ten thousand square feet of floor space are necessary and the new wing at the right has doubled the capacity of the plant. At right, the rough finishing department where the hulls are caulked, planed, sanded and given their first coat of paint. Cabin tops are prepared in a separate building and bolted in place

In the finishing department below all fittings, upholstery, paint, varnish, etc., are added and the Cruisabouts made ready for the user. Boats are shown in every stage of completion with those nearest the doors undergoing a final inspection before being moved out of the building and loaded for shipment or launched into the water for direct delivery under their own power



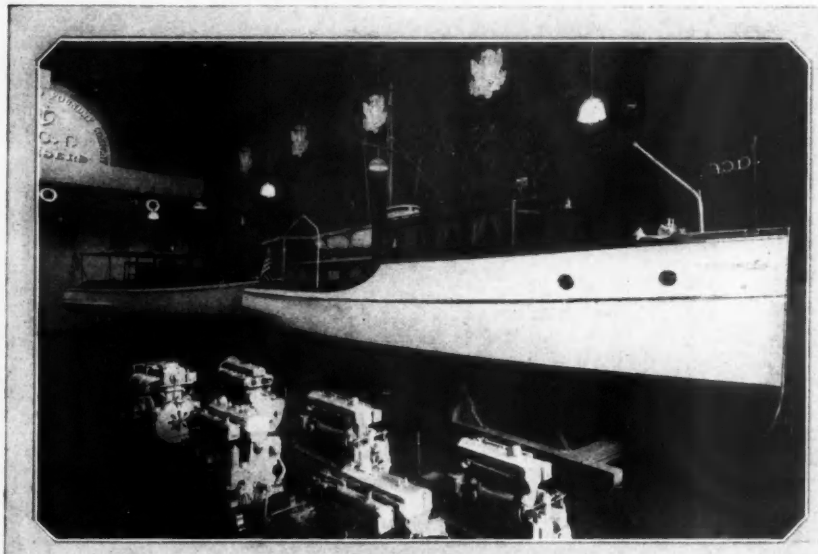
The prettily appointed new showroom of the Horace E. Dodge Boat Works in New York

WHERE TO BUY BOATS IN NEW YORK

Elaborately and Handsomely Appointed Boat Sales Rooms Now Ready to Display Their Finest Products for Critical Inspection

NOT many years ago the process of buying a boat was a most complicated and difficult one. Boats were not completed articles which were offered for sale as they are today. The usual manner of securing a boat was for the intending yachtsman to consult with a naval architect and then after a long process of securing competitive bids from boat builders, a contract was finally placed and work on the boat begun. After many months of toil and numerous inspection trips to the boat builder's yard, which was most frequently located miles from anywhere the boat was finally completed and ready for her trial trips. How different this process is today! Boat building no longer is a process in which a single boat is undertaken. The boat building industry has now taken on the dignity of a manufacturing process, and not alone that, but quantity production is everywhere evident in the most progressive boat building plants. The manufacturers of fast runabouts talk in units of hundreds, while the cruiser manufacturers, even though the quantities are numerically less, still work entirely on the quantity manufacturing plan. If we consider also the manufacturing of outboard boats, we can almost talk in units of thousands, as there are several prominent manufactur-

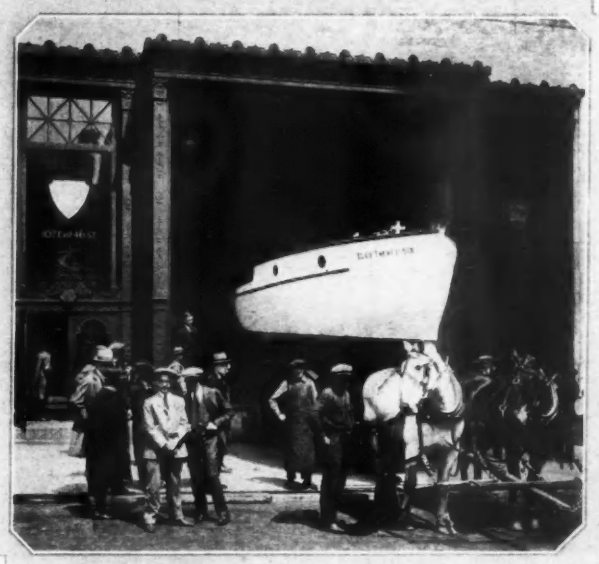
Gar Wood runabouts are well displayed in a prominent show window in the heart of Automobile Row



Interior of the large A. C. F. showroom which can house many of the largest cruisers and many Hall-Scott engines

ers of these fast little craft whose production figures run well over such large numbers.

The demands of the boat owners have narrowed down to such an extent that it is possible to build many similar boats all of which are exactly alike and all of which will fit the requirements of boatmen to the last detail. After all what difference does it make if the galley is on the port side or the starboard side, or that other little details of arrangement vary somewhat from the owner's preconceived idea as to how this should be carried out. The essential features are that the galley be well arranged and of sufficient size, that the berths be sufficiently large and comfortable for their intended purpose and that the lines of the hull are such as to make the boat easily driven and provided with sufficient power to accomplish this. The inspiration to become a boat owner is often a sudden one, and in the present development of the industry the purchase of a boat has been made a simplified process. All prominent boat manufacturers now maintain display rooms in accessible parts of New York and other big centers. The prospective owner can examine the boat of his choice in ease and comfort and before making a final decision, can take a demonstration trip in a similar boat on the water, and by actual trial assure himself of the speed and ability of an identical boat which he can buy. Boats in these days are entirely built and completed in ad-



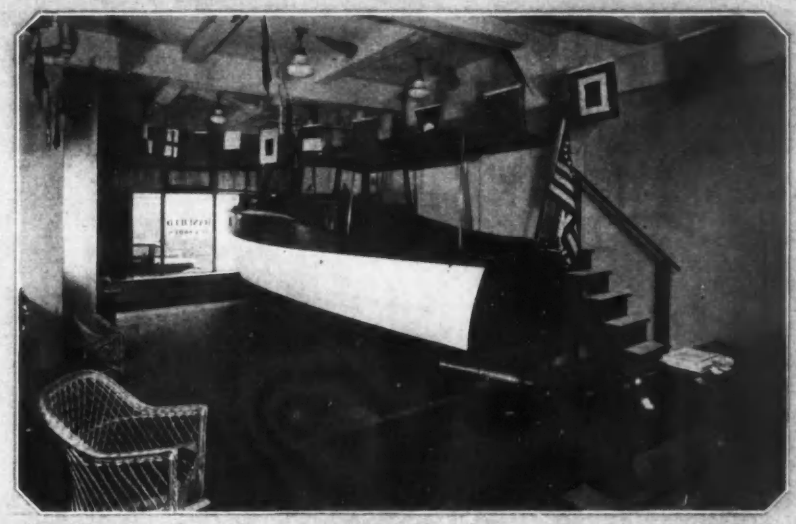
Port Elco, the first marine show room in New York, is equipped with an enormous window which is opened to permit entrance of boats

The Sea Sled showroom contains all of the Sea Sled types including the new outboard models

vance of orders for them, and can be supplied in a short space of time, this being generally only such a period as is necessary to transfer the boats from the warehouses to the water and deliver them to the purchaser at his home port under their own power. We have all become so accustomed to our ability to purchase transportation in the shape of the motor car as easily as we can buy the simplest commodity, that boat selling was compelled to follow this same order of things, and naturally the success which has accrued to progressive boat builders has demonstrated the value of this plan.

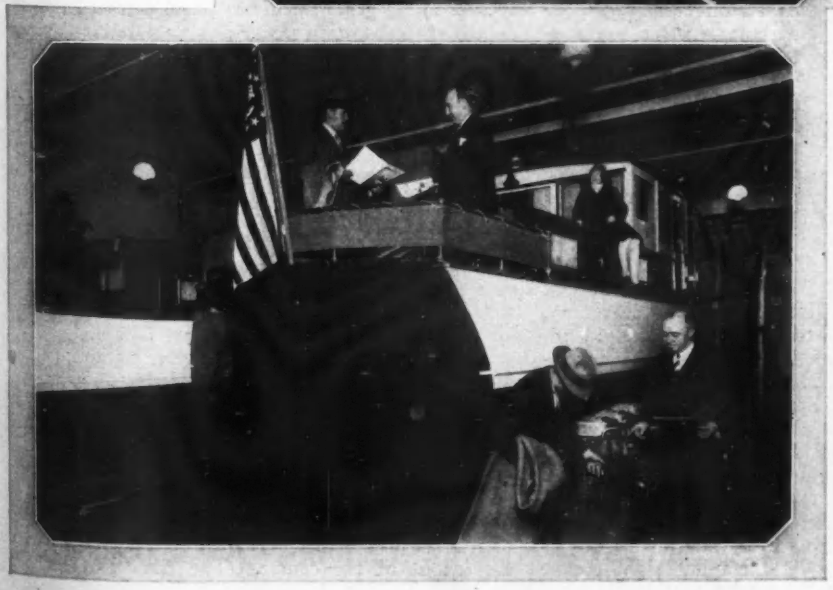
An investment which is likely to run into many thousands of dollars is not to be made lightly and there are many of us who could readily purchase fine boats if the matter of payment for them was not a pressing one. To accommodate boat purchasers, arrangements are now in effect whereby responsible people can buy on a deferred payment plan in an exactly similar way to the general method in which motor cars are sold. It is universally agreed that there are advantages in this plan to all concerned. The purchaser is enabled to spread out his payments over a longer period which is an advantage to him. The boat builder is paid in full by the financing corporation which handles this detail, and is thus enabled to construct further boats and employ his capital in his plant. This permits of a greater number of boats to be

(*Continued on page 96*)

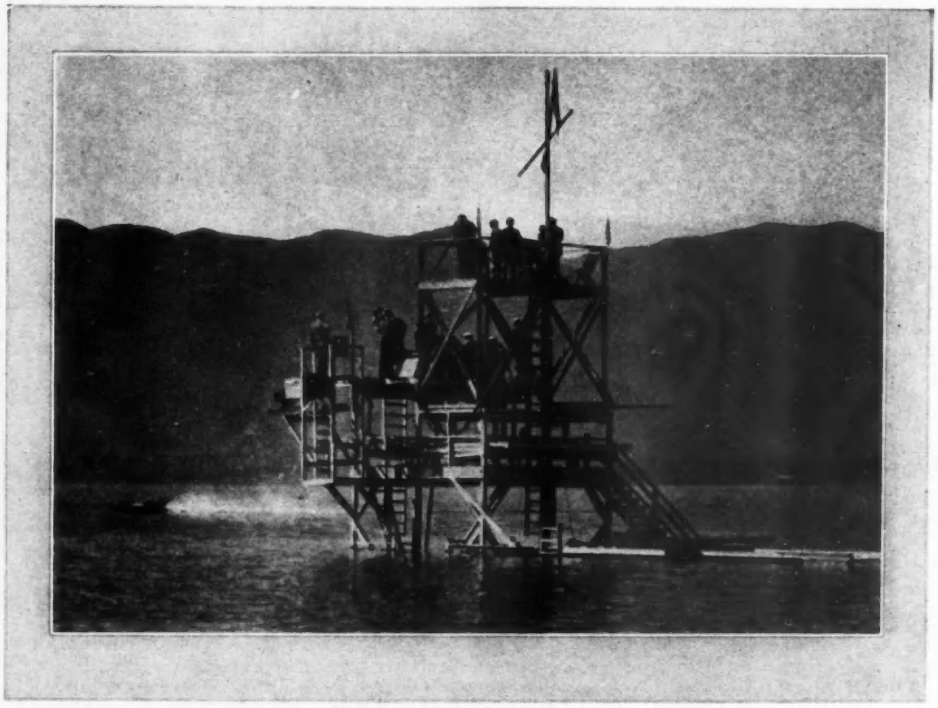


The Banfield Sea Skiff occupies an attractive show room in the busy Grand Central zone

Sea Lyon runabouts fill the large quarters occupied by Howard W. Lyon, Inc., also in the Grand Central district



Bruns Kimball boast the largest showroom in New York. The Matthews cruisers shown are only a small part of the fifteen boats on the floor



The permanent Committee stand at Lake Elsinore, California, is supported on piles and is a big improvement on the barges

ACCURACY IN RECORDS

Timing with Stop and Split Second Watches—Computing Speeds Made in Competition and the Preparation of Summary Sheets

By W. MACK ANGAS,

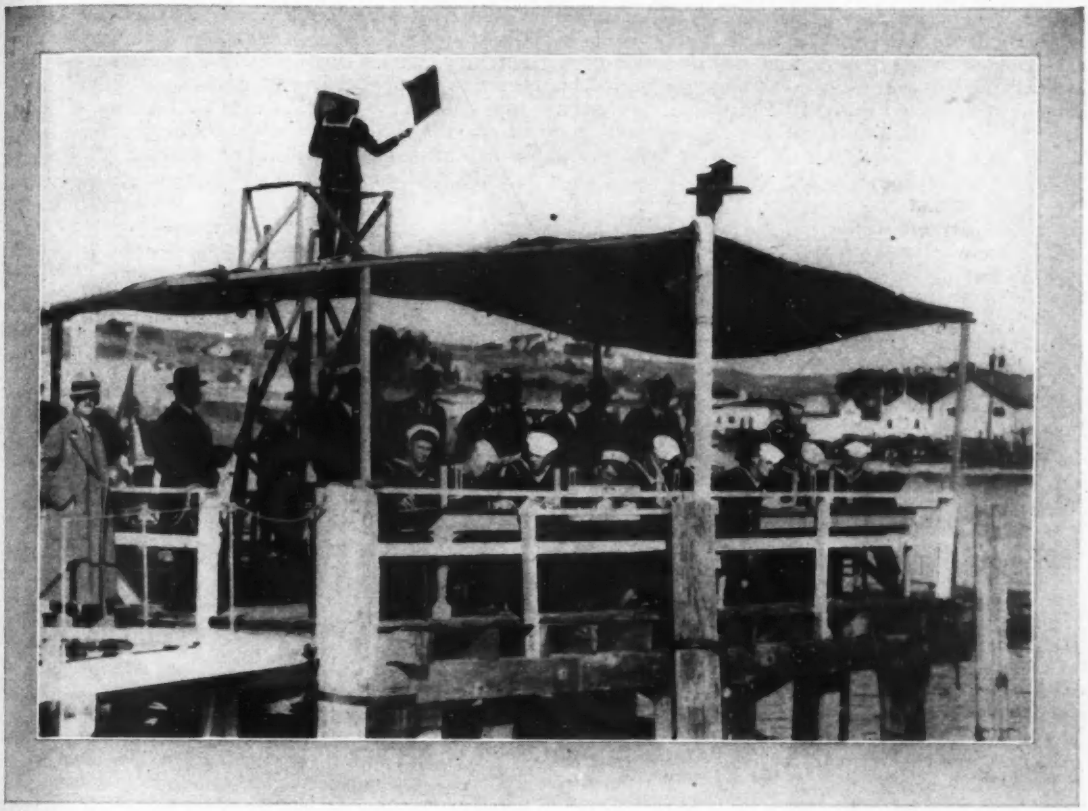
Lieutenant Commander, Corps of Civil Engineers, U. S. N.

PART II

WHILE the use of the chronograph, or so-called electric timer, is each season becoming more common at our important regattas the construction and operation of the instrument will not be taken up until the more important subject of timing with watches has been dealt with. Watch timing is more important than timing with the chronograph for three reasons: it is the method most commonly use; it must always be used in conjunction with the chronograph in case the latter somewhat complicated instrument should fail; and it is considered by the writer to be preferable to timing with a chronograph which is operated by, and records the observations of, but a single observer. This article, the second of a series of three, will deal with watch timing, the computation of speeds and the preparation of summary sheets. The construction and use of the chronograph will be dealt with in the third and last article.

Before passing to the details of the methods used to attain the greatest possible precision with watch timing a word must be said about honesty in timing. It is the function of timers to determine the speed of boats in a race and every effort should be bent toward obtaining the actual times and speeds. The chief timer should impress this on every man in his organization and should never let them lose sight of the fact that accuracy and not the establishment of new records is the goal which the timing squad must seek. If the snapping of watches a little late on the start and a little early at the finish is to be countenanced why not falsify the records and do a thorough job of it? For that matter why waste good gasoline and wear and tear on good motors by putting the boats over the course at all? The timing organization must deal with facts, be they pleasant or unpleasant to the contestant and the publicity man. The speeds that are to be dealt with are reported in miles per hour. Each mile must have 5,280 feet in its length and each hour but 3600 seconds. If the speeds made by boats in a race fall far short of their reputed speeds in conversational miles it is no concern of the chief timer and his men. They deal with facts, not fiction.

At this point it is necessary to refer to figures 1 and 3 accompanying the first article of this series as they show the precision which must be attained by the timers in order to secure speed records of a satisfactory degree of precision. As was the case with the problem of laying out courses for measured mile trials and for races in competition the two forms of contest bring somewhat different conditions and problems to the timers just as they do to the engineer in charge of the layout of the course. The timing of races in



Scorers and timers at a long table at the head of the pier at San Diego. Sight vanes are used by the timers. Three men work with watches and three others with the electric timer

which the boats run against each other in competition over a closed course—a course in which the start and finish line are at the same point—is beyond question the most common task for the average timing squad. It is therefore the most important and will be dealt with first. Examination of figure 3 will show that at speeds of sixty miles per hour, which have been considerably exceeded by the larger classes of hydroplanes and approached by supercharged 151s the largest permissible error in timing a race is 0.05 seconds for each mile of length of the event which means 0.125, say 0.1 seconds, for two and one-half mile races, 0.2 seconds for five-mile events, and 0.5 seconds if the boats are to go ten miles. Such precision is beyond the range of watches, in the opinion of the writer, but it can be closely approached, if not actually attained, by the careful use of good split second time pieces. For speeds of forty miles an hour, which have been approached by class C outboards at San Diego and Elsinore during the last season, the permissible error is quite a bit larger, being 0.11 seconds per mile. This gives a leeway of 0.3 seconds for a two and one-half mile course, 0.6 seconds for five miles, and 1.1 seconds for ten miles. These are degrees of precision within the range of good watches intelligently used but will not permit careless work or loose methods. Reference to figure 1 of the preceding article will show that the timing of boats on the measured mile makes slightly less demand for precision on the part of the timers *per mile of length of the course* but as the course is only a mile long the requirements are, in fact, more rigid than in the cases of races where the boats run in competition, events of the latter class rarely being shorter than two miles. The figure shows that to keep errors in speed down to 0.07 miles per hour, the standard of precision recommended by the writer in the previous general discussion of the precision of racing records, the timing must be good to within 0.05 seconds for speeds of sixty miles an hour and that forty-mile speeds require times to be within 0.14 seconds of correct.

Stop watches, particularly stop watches of the less expensive type, are somewhat unreliable and it is therefore essential that all official times be the result of averaging or at least comparing the readings of three or more watches. Two watches are no better than one because if they fail to agree it is next to impossible to determine which is right. The weaknesses of stop watches further make it imperative that the timers have on hand for use at any time a thoroughly reliable means of checking upon the behavior of a watch which is suspected of inaccuracy. This means that a chronometer must be available. There is no satisfactory substitute for it. One can usually be borrowed from a jeweler. It should be in the custody of the chief timer who should obtain detailed instructions from the owner as to the method of winding the particular instrument in question and the time of day at which it is to be wound. Chronometers should be wound each day at the same time and should be handled so as to avoid jars and jolts. It is also very important that they be kept away from magnetic influences of any kind.

There are two kinds of watches in general use for timing. These are known as stop watches and split second watches. The former instruments have a large

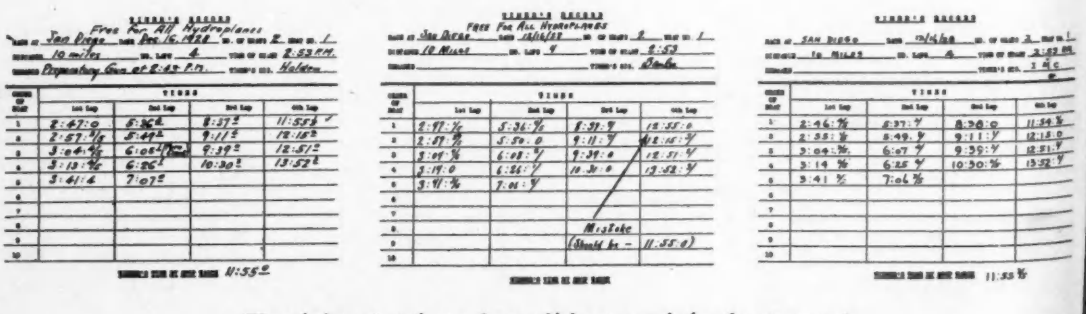
second hand which records seconds and fifths, and a smaller minute hand that is usually mounted in a small dial something like the second hand dial of an ordinary pocket watch. Stop watches are started by pressing the top of the stem and stopped by again pressing it. A third pressure on the stem sets the hands back to zero for a new start. Split second watches are very like stop watches but have a double or dual second hand, one part of which can be stopped for close reading by means of the split second button without stopping the watch. It can be used for accurately timing a number of contestants with the same precision attained by the stop watch for a single contestant. The watch is started by pressing the stem in exactly the same manner as the stop watch. The two second hands run together, one directly under and hidden by the other until the split second button on the edge of the case to the left of the stem is pressed. Pressing this button stops one of the second hands in order that it may be closely read but does not stop the watch. Another pressure on the split second button, after the reading of the hand has been recorded, causes the split second hand to jump into coincidence with the still moving hand and thus be ready for the next contestant. Speaking in the jeweler's parlance, the instruments described above are not watches but timers. In this article, however, the word timer is used to designate the men comprising the timing organization and will not be applied to the time pieces used by them. Jewelers apply the terms stop watch, and split second watch, to timepieces that have the stop or split second motion superimposed on a regular pocket watch which shows the time of day. Such instruments are expensive, they cost from $125.00 to upwards of $1,000.00, and are no better, if as good for motor boat timing than the first described devices, which will hereafter be called watches. The accuracy of all these timepieces depends upon their quality and particularly on the type of balance wheel with which they are fitted.

A close up of the sight vanes showing how they are placed and used

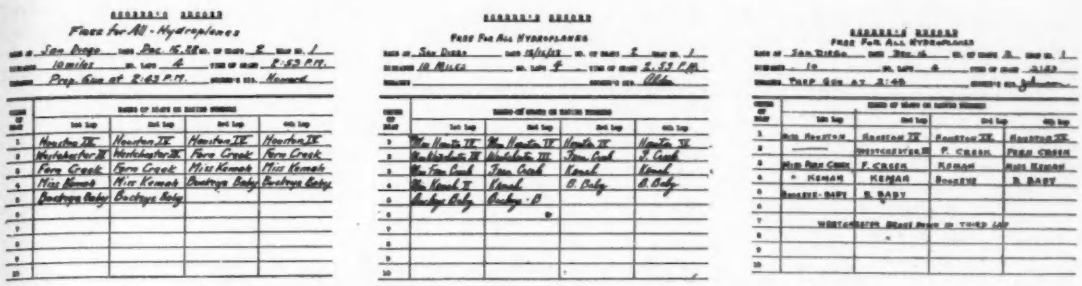
Ordinary stop and split second watches cost respectively about $10.00 and $25.00. Such watches are not fitted with balance wheels compensated for temperature changes, but will nevertheless render satisfactory service if kept at a fairly constant temperature and if adjusted and rated against the chronometer at the approximate temperature at which they are to be used. Watches with compensated balances cost perhaps 75 per cent more. They are naturally more accurate and are to be preferred, if procurable. For timing races over a closed course three split second watches and three stop watches will be needed and there should be two spares of each kind, making a total of ten watches, five of them stops and five split seconds. All watches, when in use, should be kept as nearly as possible at a constant temperature. They should under no circumstances be allowed to lie in the sun nor be unduly chilled by prolonged exposure to an icy wind. It is good practice to keep them in the vest pocket when they are not held in the hand. All watches should be tested and adjusted by a reliable watch maker the day before a race and as has been said before a chronometer should be available on the committee stand to check up any watch whose accuracy is in question. It is an excellent plan to tag all watches with a designating letter or number and the name of the timer to whom they are assigned. This may save a lot of trouble in identifying a watch that has gone hay-wire.

The timing squad will consist of a chief timer, three timers, three scorers, and four clerks or computers. There should also be an assistant chief timer who must be capable of taking over any job in the organization in case of illness or accident and who will normally see that results are given promptly to the press and that reporters do not worry the working members of the squad.

Needless to say the timing squad must have a suitable place in which to work. Not all clubs can furnish such an ideal stand as the one at Detroit, or



Three independent timers sheets which were made for the same event.



The three scorers' sheets which are compared with the timers' records and the final data transferred to the summary sheet

even the more modest one at Elsinore; but ample room should nevertheless be allowed the timers in which to work and they *must* have a clear and uninterrupted view not only of the finish line but of the home stretch as well in order that boats may be identified as they approach the line.

If the timers are located on a committee barge it is essential that a couple of range marks be set up on shore to define the start and finish line. This line must be at right angles to the course at this point. The barge must then be moored with two or more anchors to hold her firmly in position on the range and the timers are to be located on the barge so that they are exactly on the line defined by the range marks and may snap their watches as the boats cross it. While timing can be done with considerable accuracy from a committee barge or float it is much more satisfactory to locate the timers on a pier or on some sort of a stand which will not move. In such a location it is possible to provide for each timer a sight vane, something like the sight on an old fashioned surveyor's compass, through which he watches the finishes, snapping his watch as the bow of the contestants hit the wire in the sight vane. A device of the type used at San Diego is illustrated by the photograph on preceding page. The vane is set so that the line of sight defined by it is at right angles to the course. When these sight vanes are used each timer strictly speaking has his own start and finish line. This does not cause any trouble however as the lines are close to each other and each timer always uses the same one throughout a race. It was found at San Diego that the use of sight vanes considerably reduced the discrepancies between the times reported by six independent timers three of whom use watches and three the chronograph.

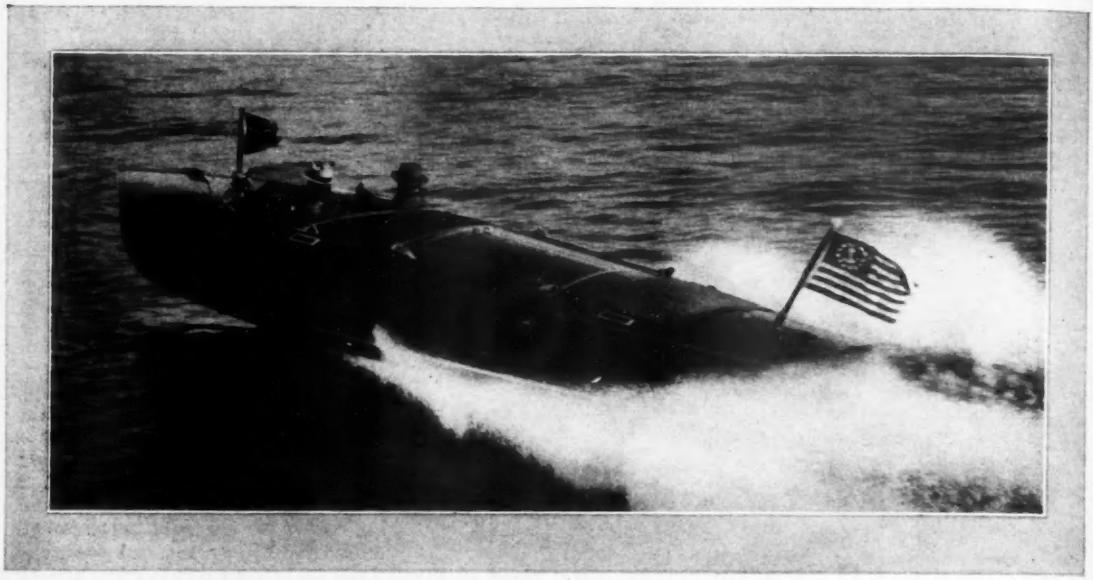
A split second stopwatch in which the hand A can be faintly seen while the second hand B is still running. The split second record is four minutes, 12 4-5 seconds and when the second button is pressed, the hand will jump into coincidence with the moving hand B

The organization of the timing squad is a most important matter, more important in fact than the quality of the instruments with which its members will work. Each member of the squad must fully understand just what he is to do and how it is to be done. There will be no time for learning how to do things during a race.

The chief timer will naturally be in general charge of all work done by his organization. He chooses the men who are to work with him, assigns their duties and supervises their work. He should not personally undertake any of the routine work of the timing organization, but must be free to supervise all its activities. It is essential that he be as familiar as possible with all the entries in every race in order that he may check the work of the scorers as they record the order in which contestants finish and assure himself that mistakes of identity are not being made. The other members of the timing squad must obey the orders of the chief timer implicitly and without question. Men who insist on arguing about methods or who jump up and leave their jobs when there is an accident on the course or some other excitement are of no use in the timing squad. Members of the squad must also be willing to forego the pleasure of seeing the races. The computers in particular will see very little after the first race. The speed with which summary sheets are prepared depends a great deal upon the skill of the computers. Men who are used to handling figures, particularly men who have frequent occasion to make calculations of an engineering or scientific nature will catch on to the computer's job a good deal faster than will men who have no real familiarity with such work.

The actual work of timing is done by the three scorers and the three timers. The duty of the scorers is to recognize and record the identity of the contestants as they cross the line at the end of each lap of the race and at the finish. They make, in effect, a list of the order of finish of the boats for each lap. The timers read and record the times at which the various contestants finish each lap but pay no attention to the identity of the boats. The forms used by both scorers and timers are shown on

(*Continued on page 72*)



M. Rosenfeld

One of the new 26-foot all mahogany Hacker craft which is powered with the 200 h. p. Kermath. It will carry nine people and does 42 miles

HOW FINE RUNABOUTS ARE BUILT

Plant of the Hacker Boat Company Working at Full Speed on Production of Fine High Speed Runabouts

A portion of the mill room, where labor saving machinery is heavily employed. The Hacker plant is noted for its excellent woodworking equipment

After the keel is laid, the engine stringers, frames, battens and side planking are added after which the boat is moved to the production room for further stages in completion

THE Hacker Boat Company of Mt. Clemens has written its name in bold type on that Honor Roll of the leaders in the boating industry. As one of the oldest designers and builders of mahogany runabouts, John Hacker early attracted a group of workmen to him, whose pride and zeal in fine craftsmanship found a ready outlet under his guidance. Their creative ability was directed by this master of design until today the Hacker Dolphin runabouts are famed the world over for their beauty of finish and fine workmanship.

Nowhere in this country, perhaps, will one find any closer adherence to the standards of fine workmanship carried to such extremes. To see the Hacker workmen at their appointed tasks reminds one of the tradition which ruled the

craftsmen and their apprentices in the guilds of the middle ages.

The Hacker plant is compact and intelligently laid out for the utmost efficiency. It is impressively knit together, resulting in a minimum of waste effort and waste space.

For those who react favorably to the sight of workmen painstakingly lavishing their skill and acquired technique on the object of their labors, a trip through the Hacker Shops is well worth while. Though advanced production methods obtain, there is an orderliness and unhurried workmanship that impresses one with its skillful direction and effectualness.

Handwork still has a premium placed on it in the Hacker Shops—the practiced eye and hand have not entirely given way to the stridency of machinery. In a short, rather interrupted interview with John Hacker, the point which he constantly stressed was the fact that wood, unlike most materials particularly adapted to production work, responds most favorably to those who understand and react to grain and texture—who, in short, love wood for its beauty and pliancy and strength.

It was not hard to understand and appreciate, after talking with the guiding spirit of this boat plant, why the men appeared to be so painstaking in their efforts or why the gleaming hulls of the runabouts themselves as they awaited their turn for the final water tests seemed to reflect a certain pride in their sleekness that reminded one of a perfectly groomed thoroughbred being led to the starting line, or a handsome bird, preening its plumage with an indefinable air of self-complacency.

The bottoms of Hacker runabouts are double planked. Those shown have the diagonal planking on one and the longitudinal on the other

The production line showing the process of finishing and sanding the hull planking of the 30-foot Dolphin

A corner of the big boat shop at Mt. Clemens. Hacker runabouts are shown in many stages of completion

Special lifting gear is provided to place the boats in and out of the water for their tests

The hulls advance slowly from one stage to the next and grow under your eyes

M. Rosenfeld

William Atkin who will prepare many popular new designs for MoToR Boating's *readers*

NEW DESIGNS BY ATKIN

Shipmates:—

This number of MoToR Boating *inaugurates a new idea in the manner of presenting How-To-Build articles.*

Always in the past it has been difficult to carry the reader through the various processes of boat building within the limits of four or five pages; the plans, you see, take room, and the specifications take room, leaving all too little for explicit instructions as to the manner of getting on with the work.

Mr. Chapman has kindly asked me to contribute a series of articles showing in more detail than has hitherto been possible, in the design and construction of practical small craft, and this number of MoToR Boating *sees the first of the series.*

This is the way the thing will proceed: for this issue we have two boats; the design of the smaller of these, Speculation, is complete in this issue. But we have only the first part of the article on the 26-footer, Ripalong.

June MoToR Boating *will see the conclusion of the Ripalong article and the first part of a new design, so you see once started we shall have a series of overlapping articles. This arrangement will provide space for the badly needed detail sketches in the second part of each article.*

I have in mind some wholesome little cruisers as the subjects of these articles and am sure the series will be of great interest not only to the amateur builder, but to the professional as well.

Sincerely

WILLIAM ATKIN

READERS of MoToR Boating who have followed the monthly designs in the pages of this magazine for many years will recall the earlier series which Mr. Atkin prepared during the year 1925. This new set of designs starting this month will be more completely detailed than any previous attempt of this kind. It is planned to publish each design in two parts. The first part is to be the blue print design in our usual complete way, and this will be followed by interesting sketches of the construction details which the amateur builder will find particularly useful and helpful. Each design will be handled in a similar manner and be complete in itself. Every detail will be made as clear as is possible on paper and amateur builders will be able to follow out the designs without the slightest difficulty.

MoToR BoatinG's Build A

Boat Series "RIPA

A 26 Ft.

Designed Especially for

MOTOR BOATING

by

WILLIAM ATKIN

SCALE

¼ In. = 1 Ft.

No. 225

	A	0	1	2
			HEIGHTS	
L W L TO R. DK.	3-9	3-8¾	3-7	3-5¼
" " SHEER	2-11½	2-10¾	2-9	2-8¾
R DECK TO ℄ DECK CROWN	0			STATION
BASE TO B 2			5-0½	1-11⅞
" " B 1			1-11	1-2½
" " RABBET		2-5¾	0-11½	0-9⅛
" " KEEL		2-0	0-9	0-6⅞
" ℄ SHAFT				
			HALF	BREA
RAISED DECK	0-0¼	0-9⅛	2-6½	3-5
L. L. 2		0-4	2-6½	3-5
L. L. 1		0-3½	1-8½	2-9
L. W. L		0-0¼	1-3	2-4
			DIAGONAL	
D 1			2-1½	2-9
D 2			2-4	3-½

DIMENSIONS TO OUTSIDE PLANKING IN FT

...ALONG"

...ft. Fisherman

	2	3	4	5	6	7	8	9
GHTS								
	3-5¼	3-3½	3-2	2-11	2-7⅞	2-6	2-5½	2-5½
	2-3¾	2-1½	1-11½	1-10	1-9½	1-10	1-11	1-11½
TRAIGHT		TO	0-8½					
	1-11⅞	1-5	1-3½	1-2¼	1-4⅞	1-6	1-7⅛	1-7⅛
	1-2½	1-0⅛	1-0¾	1-2½	1-4¼	1-6	1-7⅛	1-7⅛
½	0-9⅛	0-9⅜	0-10⅝	1-1	1-3¾	1-6	1-7⅛	1-7⅛
	0-6⅞		STRAIGHT		TO		0-0	
	BREADTHS							
½	3-5	3-10½	4-0	3-11¾	3-10	3-7	3-3	
½	3-5	3-7	3-11	4-0	4-0	3-10½	3-8½	
½	2-9	3-5½	3-9¾	3-11¾	4-0	3-11	3-9½	
	2-4	2-11½	3-7¼	3-9¾	3-10	3-9	3-7½	
ONALS								
2	2-9	3-11⅝	3-11⅞	2-10⅞	2-8¾	2-7	2-5¾	
	3-½	4-0¼	4-4½	4-5½	4-5½	4-4½	3-2¾	

IN FT. & IN. PLANKING ⅝" THICK.

RIPALONG, A DAY CRUISER

The First of a New Series of Popular Motor Boat Designs Is a 26-Foot High Speed Day Cruiser and Fishing Boat

Designed Especially for MoToR BoatinG

By WILLIAM ATKIN

SEVERAL years ago one of my clients wished to have some kind of small seaworthy boat from which to fish and which at the same time would do for day cruising. Since the boat was to be used off Block Island and in Gardiner's Bay she must be able and safe. So far simple enough; but he also wished this craft to have a speed of at least 20 miles an hour, and to be of the round bilge type.

After studying over the problem for several days the lines were produced and these were very similar to those of Ripalong which is the subject of this article. Subsequently my client's fishing boat was built by one of our local builders and during her construction I was properly gibed for expecting her to attain a speed of 12 miles an hour; let along anything like twenty. I am afraid even the boat builder depreciated my expectations as to speed. And well he might because really she looked all the world like a liesurely little packet of the 8 mile an hour variety. There was the full length keel, fat bow, and roly-poly bilges. No one bothered to analyze her lines, just jumping at conclusions and thinking because she was not of the V-bottom type that she could not have speed.

At last she was launched and with her 100 h. p. engine turning at 2,400 r.p.m. ticked off something better than 23 miles an hour! Much to my delight and to her owner's.

If you look back through MoToR BoatinG a year or so ago you will find a photograph of this surprising craft; her name is Rip II, and she was owned by George C. Meyer, New York, N. Y.

I have had so many inquiries in connection with Rip II that I have set out to improve her in several respects and the drawings here show the result. Ripalong is her name.

The principal dimensions are: L. O. A. 26 feet, this brings her in class one and permits the simplest of government equipment; combination side lights, and all that sort of thing. Her water line length is 24 feet 11 inches; breadth 8 feet and draft 2 feet. Forward the freeboard is 3 feet 9 inches and aft 2 feet.

A study of Ripalong's lines will show a distinct reverse curve in the rabbet line and buttocks, also in diagonal 1. It will also show perfectly flat sections from station 7, and aft; the load water line is nearly parallel to the center line from station 6, and aft. Now these features coupled with a comparatively full bow of generous lifting capacity cause the boat to lift bodily. When under way at speeds over 15 miles an hour the first Rip does not stand up on her tail like so many of our fast runabouts, but rather rises for her full length and goes ahead with a very comfortable motion even in rough water. I have had her out in bad easterly weather when it was too rough for most small cruising boats and little Rip was steady, and remarkably comfortable considering she was making over 20 miles an hour. To be sure she was wet when going into a quartering head sea; but show me the small boat that is not. Off the sea she runs beautifully, this I know is the beneficial action of the long keel and the full lifting bow. I think, too, that the round bilges make an easier boat than the square corners of the V-bottom type. I do not want folks to feel I depreciate the V-bottoms, for certain purposes the sharp chined model is supreme.

There is certain comfort in knowing that the rudder and propeller is fully protected with a metal shoe. This little packet can be run aground, beached, rolled up on rollers, and handled anywhere without fear of damaging the propeller and shaft. Boats with exposed shafting hanging in a strut are cussed things to haul out and one has to be on the lookout for driftwood every minute. Of course the additional surface of the long keel adds resistance, and cuts something from the speed; but its advantages far outweigh its dis-advantages.

Perhaps I should point out here the necessity of having the bottom of Ripalong very smooth and to add that this applies as well to the long keel and deadwood. Rather than have a square corner on the bottom of the keel this part should be rounded off so as to approach the section of half a cylinder—the rounder and smoother the better.

An engine which develops about 100 h. p. at approximately 2,400 r.p.m. gave excellent satisfaction in Rip II and this looks to be a good choice for Ripalong. I believe the new design will do up to 25 miles an hour with a high speed engine of moderate weight and developing in the neighborhood of 150 h. p. Needless to say, however, the center of weight of the motor should be in the same position as indicated in the plans herewith, namely 12 inches forward of station 4.

Now let's see what we have in the way of accommodations. There is a big cockpit, 10 feet long and the width of the boat. It is interesting to note that this is water tight and self bailing. This means that rain water or spray cannot get inside the boat; and what a comfort this is. To get under way just open the companion doors and start the engine: to go ashore shut off the motor and close the doors. No covers, or anything to mess with.

The mast besides carrying the sailing lights carries a short boom which is used for an awning pole when its fore end is pinned into the upper eye band. The mast does not go through the cabin top, but is very well stayed with 3-16 inch diameter galvanized iron rigging; a shroud each side and a head stay. A vang each side snapped into an eye in the rail prevents the boom from swinging and a single halyard keeps it peaked up. The mast and boom with their standing rigging should be painted (*Continued on page* 84)

SPECULATION—A CAT RIGGED CLASS BOAT

A New Design for the So-Called Suicide Class Adopted by the Huntington and Other Yacht Clubs

Designed Especially for MoToR BoatinG

By WILLIAM ATKIN

LAST summer the Huntington Yacht Club adopted a new class of racing craft and the boats that form this have somehow been named suicide boats; not that these craft are unsafe or unseaworthy, but because several of the fleet carried names like Noose, Poison, Hootch, and so on. At any rate the name for the class has stuck, and is not so bad anyway.

Because of the class name it seemed appropriate to use a skull and crossbones for the insignia, with the number of the boat below and so these marks are painted or sewn on the sail in black, in the case of white sails, and white if khaki or Turkey red balloon silk is used.

The fleet will number twenty boats at Huntington this racing season and there are three at Marblehead, the latter having been designed by L. Francis Herreshoff of Marblehead, Mass., so you see the idea is growing fast.

I am now having Speculation built by the Mill River Boat Works at East Rockaway, L. I. She is completely finished with the exception of rigging. It may be interesting to note that two boats have been built similar to this and these have been racing at Coconut Grove, Florida, for the past few months: one of these is Wet Smack which was exhibited at the last motor boat show and which it will be remembered is owned by Mrs. Charles A. Gould, II, of Huntington, while the second which is named LD is owned by C. Townsend Ludington, Ardmore, Pa. But there is no similarity in the rig of Speculation and the two earlier craft.

Folks have asked me the significance of the name Speculation. Well that accounts for the wherewithall which made her building possible. And speculation is often suicidal. So there you are.

After having fooled around half last summer working out the regulations to which these little boats must be built the following rules were adopted as final for some time to come.

L. O. A.—No restrictions.

L. W. L.—No restrictions.

Breadth—Not less than 3 feet 6 inches and not more than 5 feet 6 inches.

Draft—No restrictions.

Sail area—not more than 125 square feet, total area. No light sails. Designers must allow for stretch.

Spars—No restrictions, except no curved masts.

Rig—No restrictions.

Freeboard—Not less than 6 inches at lowest place, measurement to be taken with full equipment but minus crew.

Planking—At least 5/16 inch throughout.

Type—Centerboard. No keel or leeboards. Centerboards may be made from any materials; but must be uniform in thickness so as to be drawn through the trunk.

Bows—Must be of conventional form. i.e. No punt, parabolic, elliptical, round or scow bows allowed.

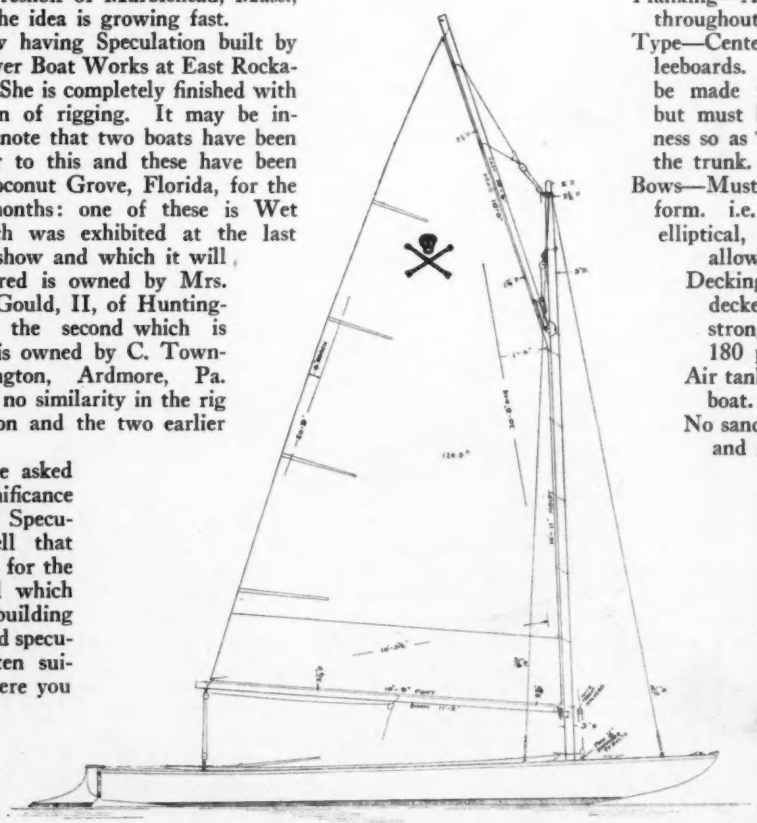
Decking—Optional, but if decked, deck must be strong enough to carry a 180 pound person.

Air tanks—Sufficient to float boat.

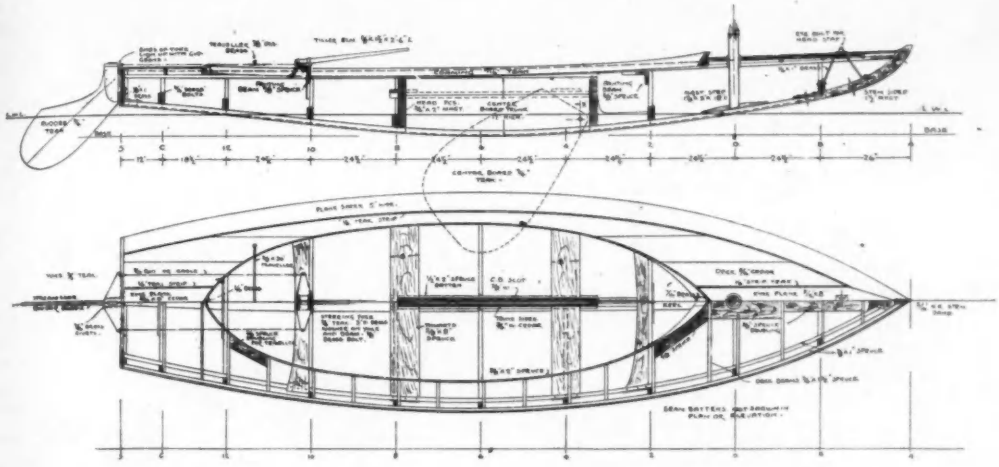
No sandbags or loose ballast, and no sliding seats.

The idea of the above is to develop the fastest hull (within the limits of the rule) possible with 125 feet of sail.

So these are the rules.

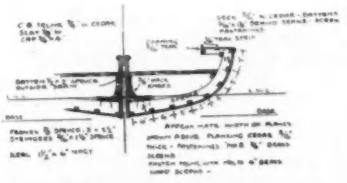


Outboard profile of the cat rigged suicide class boat designed by William Atkin



The construction and arrangement drawing for the cat boat Speculation reproduced to a scale of ¼ inch to the foot

Speculation besides being a wholesome big boat will also sail well and should be fast. The rig is simplicity itself and while theoretically not as efficient as the tall jib headed mainsail with staysail, practically it works out remarkably well. In this connection it may be interesting to mention that the fastest of the Huntington fleet is rigged much like our little craft here and I am sure she will prove entirely satisfactory.



A midship section of the boat reproduced to the same scale as those above

Now as to the building.

The first thing required will be a protected space with a smooth floor, preferably indoors. Next will be a roll of building paper, the sort that is used as insulation between sheathing and boarding on a house. This sheet must be 20 feet long and 3 feet wide.

Upon this the lines are laid down full size, a process that must be carried out if you expect to have your boat like the plans. Show we a builder who builds from plans without bothering about the laying down of the lines and I can as surely show you a builder who will work havoc with the form of a boat that has been carefully designed. There is nothing like starting right, so, lay her down full size.

Begin by snapping a line along one edge of the building paper which of course has previously been tacked to the floor; this will be the base line; above this as shown in the drawing of the lines strike in the L. W. L. which is 6 inches above the base. Then come the three level lines, indicated respectively by L. L. 1, 2, and 3.

With these drawn set up the perpendiculars A, B, 0, 2, 4, 6, 8, 10, 12, C, and S. With these lines finished it will be a simple matter to read from the table of offsets the heights to sheer, to buttock 1 and 2, to rabbet and to bottom of keel. Thus you will have the profile completed with the exception of the dimensions shown forward indicating the turn of the stem. It is good practice to do the profile with a red pencil.

This is because the half breadths are superimposed over the profile, and by drawing these in black the lines are less confusing. The deck line should be marked in first, using the dimensions given on the table of offsets, then the level lines (L. Ls.) finishing with the half breadth of the keel.

I should now draw in the body plan using station 6 for its center line. The body plan is the portion of the full sized drawing from which the forms, or in this case the frames, are to be made. It is therefore of importance to have the lines of the sections check up with the lines in the profile and half breadth. The diagonal lines designated on the plans by D 1, D 2 and D 3 show the longitudinal contour of the bilge in three places and their use is to check up the previously drawn water lines, buttock lines, sheer, keel, etc.

Any boat of this type should be built bottom side up. The thing to do is to set up studs from a base made from two 7/8 by 10 in. wide, by 19 feet long, planks nailed together so as to form a trough having sides set at an angle of 90 degrees. The base will have one plank lying flat; the other standing vertical. You can see the idea in this. It forms an excellent backbone upon which to build the boat. The studs, 2 by 4 inches, will be set at the distance between stations as shown on the drawing of the lines. The studs should be cut to length of approximately 3 feet and then securely fastened and braced so as to be perfectly perpendicular both in a fore and aft and athwartship direction.

Now with a chalk line snap in the loadwater line across the sides of the studs making sure that this is level. It will be then a simple matter to measure down each stud to arrive at the sheer; and up between stations 0 to 12 inclusive to arrive at the curve of the keel. Before cutting off the studs you must of course take off the thickness of the keel and stem, both of which are shown on the construction plan. The correct angle for the top of each stud is found from reference to your full size drawing.

In this Speculation the frames are made from 7/8 inch airplane spruce 3 inches at the keel and 2½ inches at the deck; each side can be in a single piece and these are joined at the keel with a ¾ by 3 inch

OFFSETS NO. 221.

STATION	A	B	O	2	4	6	8	10	12	C	S
- HEIGHTS -											
L.W.L TO SHEER	1-6	1-4 3/4	1-3 1/2	1-2 1/2	1-1 5/8	1-1	1-0 5/8	1-0 3/16	1-0 5/8	1-0 3/4	1-1
BASE TO B 3											
" " B 2			1-0 1/2	0-6 3/4	0-3 5/8	0-2 5/8	0-3 1/2	0-5 3/4	0-9 1/2	1-1 1/4	1-4
" " B 1		1-2 7/8	0-8 1/4	4-3 1/8	0-1 1/16	0-1	0-2 1/4	0-4 3/8	0-7 1/2	0-10 1/16	1-0 1/8
BASE TO RABBET		0-7 3/8	0-6 1/2	0-3 5/8	0-1 1/4	0-0 1/2	0-1 1/2	0-3 7/8	0-6 1/2	0-8 1/4	1-0 1/4
" " BOTTOM OF KEEL		0-10 1/2	0-6	0-2 7/8	0-0 3/4	0-0	0-1	0-3 3/8	0-6	0-7 3/4	1-8 3/4
- HALF BREADTHS -											
DECK	0-0 1/4	1-2	1-10 3/4	2-4	2-6 3/4	2-7 3/4	2-7	2-5	2-1 1/8	1-9 1/2	1-6 5/8
L.L. 3											
L.L. 2		0-8	1-6 3/8	2-1 5/8	2-5 5/8	2-7	2-6 3/8	2-4	1-11 3/4	1-6 5/8	1-2
L.L. 1		0-6 7/8	1-1 3/4	1-10 1/2	2-3 1/2	2-5 3/8	2-4 5/8	2-1 1/2	1-6 3/8	0-5 5/8	0-4 1/4
L.W.L.			0-0	1-2 5/8	1-10 1/2	2-1 3/4	2-0 3/8	1-5 1/2	0-0		
W.L. 1											
KEEL	0-0 3/4	0-0 3/4	0-1 1/2	0-2 1/2	0-3	0-3	0-3	0-3	0-2 3/8	0-1 1/2	0-1
DIAGONALS											
D 1		0-4	0-8 3/4	1-0 1/2	1-3	1-3 5/8	1-2 5/8	1-0 1/4	0-9	0-7	0-5 7/8
D 2		0-8 3/8	1-2 7/8	1-7 7/8	1-11 1/4	2-0 1/2	1-11	1-8 1/4	1-4 3/8	1-1 1/4	0-11 1/4
D 3		1-0 1/2	1-8 1/4	2-1 3/4	2-5 1/2	2-6 7/8	2-6 1/4	2-3 1/2	1-10 7/8	1-6 7/8	1-4

LINES TO OUTSIDE OF PLANKING - PLANKING 5/16" THICK
IN FEET AND INCHES -

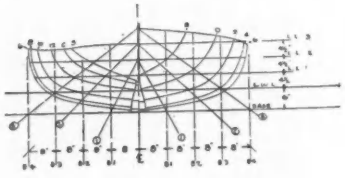
Table of offsets for Speculation which gives all necessary figures for laying out the lines and frames

deep floor timber. Remember to scribe from the outside of each frame the thickness of the planking which is 5/16 inch. At each frame there is a deck beam; let this run right across the boat throughout the cockpit-space and all; the crown should be 1½ inch for the width of the boat. The deck beams will be ¾ by 1½ inch spruce.

With the frames all made, and the stern board, the latter to be ¾ inch mahogany, you can turn your efforts to getting out the keel.

The keel is a piece of mahogany 1½ inches thick by 6 inches wide by a few inches over 17 feet in length, exact length should be obtained from the laying down plan. The keel is tapered both ends as given on the table of offsets, and has a rabbet 5/8 inches deep by ¾ inches wide for its full length. The fore end of the rabbet should not be cut until the stem is attached.

The stem is a piece of mahogany sided 1½ inches and moulded as shown on the construction plan. The position of the rabbet and its form is arrived at by working out sections through the stem from the fore ends of the water lines on the full size drawing. Fastenings to the keel will be two ¼-inch brass bolts.

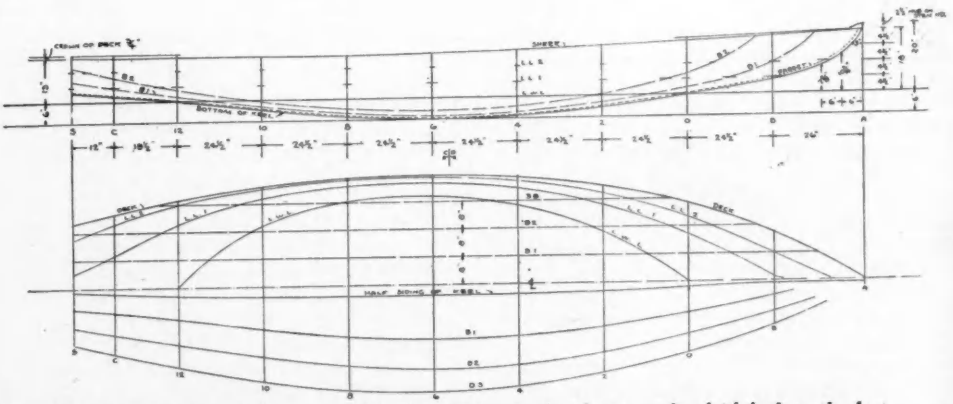


The keel with the stem attached is now ready to be bent over the studs. This is a simple process as it will bend easily; it can be held down by shores extending from rafters or ceiling above. A long screw should be driven through the keel into every other stud. You must be careful that the center line of the keel coincides with the center line of each stud.

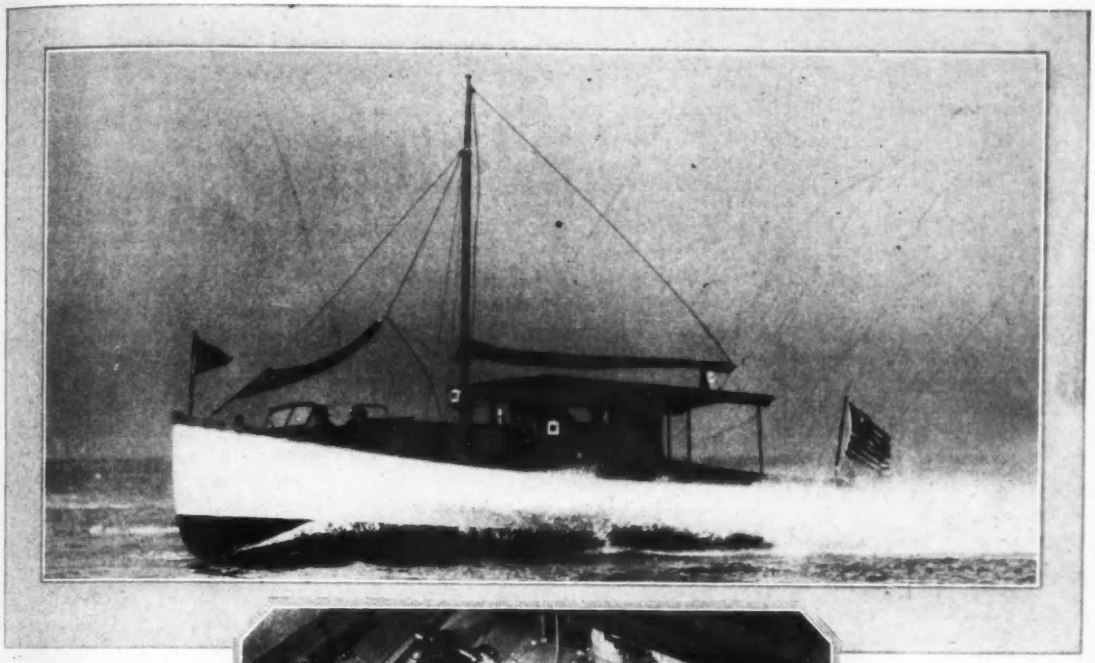
Now the frames and stern board can be applied. There must be a notch 6 inches wide and ⅞ inch deep at the center of the bottom of every frame; the keel fits into this, and it should be a tight fit. Now, the purpose of the studs will be apparent. Each frame will be fastened to the face of each stud. I have neglected to point out that the studs should be set in relation to the station line so that when the frames are set in place their centers (the frames) will be on the station lines. Frames should be securely fastened to the keel with 3½-inch brass screws; two to each frame.

After having faired up the frames and permanently secured them, the notches can be cut for the seam battens. Since the battens are ⅝ by 1¼ inches, the notches must be the same, and there will be seven battens each side as shown on the construction plan. Each frame will carry the same number of battens, which means that the spacing as the bow and stern are approached will be narrower. Make a tight fit of these. The battens, by the way, are laid flat. Use 1½-inch brass screws for fastenings here, one to each batten. The planking is 5/16 inch clear white cedar and of course there will be seven strakes to each side. The one next the keel is fitted and fastened first, the garboard. Thence working out, the first two will go on easy enough but the rest are the dickens for fastening, because they must bend both fore and aft and across the plank. The bending is accomplished by applying hot wet rags to the outer face

(*Continued on page* 86)



The line drawing of the new suicide class boat reproduced to a scale of ¼ inch to the foot. These drawings should be enlarged to full size before work can be begun



The Matthews 38-Sport Cruiser capable of high speeds with powerful engines

An installation showing the Kermath main engine and the Universal Flexifour auxiliary driving through a silent chain

M. Rosenfeld

NOVEL AUXILIARY EQUIPMENT

Fast Cruising Boats Now Using Small Engines Operating on Main Shaft for Trolling and Emergency Service

THERE has always been a demand for auxiliary power in cruisers on account of the safety feature provided by having two power plants. This has been accomplished by using twin installations and also by placing a small auxiliary motor alongside the large motor, using two propellers and two propeller shafts. The latter type auxiliary has worked out very well in slow speed boats, but in high speed boats the drag of the auxiliary propeller makes it more or less impracticable.

The Matthews Company of Port Clinton, Ohio, have given this matter of auxiliary a great deal of thought and have worked out an arrangement for auxiliary power which combines the advantages of a twin screw installation with those of a single motor installation.

The Universal Flexifour 10-15 h.p. motor is used for the auxiliary power and is installed in the Matthews 38-foot Sport Cruiser alongside the main power plant and connected to the main power plant propeller shaft by means of a silent chain. By using the proper sprocket sizes the desired reduction ratio is obtained so that the Universal Flexifour 10-15 h.p. motor can turn the main power plant propeller and drive the Matthews 38-foot cruiser 7 to 8 miles per hour. A jaw clutch is arranged on the main propeller shaft to disengage the chain sprocket while the main power plant is operating and to engage this sprocket when the auxiliary is started.

To start the auxiliary, the operator merely shuts down the main power plant, presses the starting button to start the Universal auxiliary, then moves the lever to operate the jaw clutch which engages the chain sprocket on the *(Continued on page 118)*

Photographs J. L. L. Gomez

Miss California, a 151 hydroplane driven by Dick Loynes, won the Cuban National Tourist Commission Cup

PAN-AMERICAN REGATTA AT HAVANA

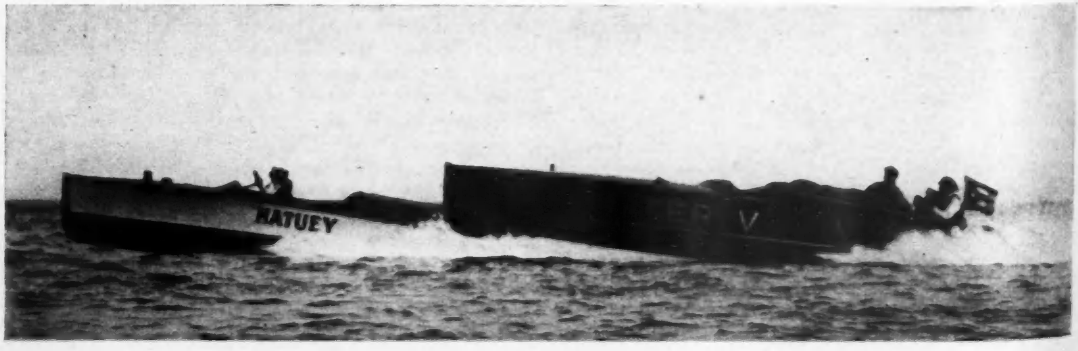
THE Pan-American Regatta, an annual event sponsored by the Cuban National Tourist Commission, assisted by the Havana Yacht Club, this year surpassed in the matter of enthusiasm, attendance and real hospitality all previous meets. The banquet and presentation of the cups were held at the New Sevilla Biltmore Yacht and Country Club. The trophies themselves made a wonderful display of gold and silverware, notable among which were the General Machado Cup, the Cuban National Tourist Commission Gold Cup, the National Tourist Silver Cup, Mayor Miguel Gomez Trophy, Auto Club of Cuba Cup; American Legion, Hotel Plaza and Yachtmen's Trophy.

Unlike the States, the races in Havana are conducted in the morning, as they are run in the open ocean and a very brisk trade wind in the afternoon makes racing of small boats rather difficult. Therefore, on the first day, March 30, the Committee were on the barge at 8:30 ready to start the outboards on their two laps of three miles. The Tourist Commission built a handsome reviewing stand on the sea-wall just behind the judges' barge and only those that have visited Havana can imagine the style and beauty of the lovely Cuban ladies in this setting.

In addition to the class racing, an event of unusual interest was the Alemandares River to Malecon race, a race in open water through a very rough sea and for a trophy worth-while, the Machado Cup. There was much enthusiasm among the many thousands that lined the sea-wall as Baby Buckeye, a frail 151 hydroplane, hove into view, jumping from wave to wave with Gibson Bradfield, its owner at the wheel. He drove across the finish line and was glad indeed that the crane of the barge was ready to take him out of the water, as his boat was leaking.

The major event of the regatta, the 151 hydroplanes, roared across the line to a race-horse start, paced by Ramond Suero, a Cuban sportsman, in his new boat Habana.

(*Continued on page 142*)



Mater V and Hatuey, owned by Miguel Macias and Rafael Posso, competed in all events and were successful in several

SMALL MOTOR BOATS

Their Care, Construction and Equipment

A MONTHLY PRIZE CONTEST CONDUCTED BY MOTOR BOATMEN

Questions Submitted for the July Prize Contest

1. Explain methods of locating and remedying common and uncommon knocks peculiar to marine gasoline engines.
(Submitted by W. B. M., Newburgh, N. Y.)

2. Describe and illustrate, if necessary, the procedure you would follow in dropping a second anchor, if the first one dragged in a gale, so that the two would not foul.
(Submitted by H. A. M., Philadelphia, Pa.)

READING THE WEATHER SIGNS

A Subject With Which Every Boatman Should Be Familiar Enough to Do His Own Forecasting Within Reasonable Limits

Answers to the Following Question Published in the March Issue

What barometer, wind, tide, and weather hints have you found of significance in daily or frequent commuting twenty or more miles by motor boat?

Reasons for Bad Weather

(The Prize-Winning Answer)

AN understanding of the causes which are responsible for the weather which is likely to follow for the next day or two is of utmost importance to boatmen. When planning a trip of any kind it is always desirable to know whether or not fair days can be expected, and where daily trips must be undertaken irrespective of the weather, it is well to know in advance whether to prepare for fair weather or foul.

Those who live along the Atlantic seaboard can determine much more readily what their chances with respect to the weather are likely to be than those who live on the west coast. The rotation of the earth sets up tremendous billows of atmosphere which cross the American continent in a general direction from northwest to northeast, describing a huge arc across the country. These waves of air follow each other in succession and are at times so large that there may be only one single wave on the entire continent. At other times the waves may be said to be shorter and steeper when they move more rapidly and in closer succession. The winds which accompany these waves will flow around them in a clockwise direction when the crest of a wave approaches. In a similar way the trough of a wave is accompanied by winds which rotate in a counter clockwise direction. The direction of the winds and their rotations determine whether these areas of atmosphere are termed high pressure areas or low pressure areas.

It is a function of the weather bureau to plot the barometric pressure at many hundreds of stations throughout the United States on the weather chart each morning. These observations are made at the same time for all stations, then corrected for sea level and temperature. When plotted on the daily weather map they resemble more or less closed figures with lines connecting all points of the same pressure and are marked high or low, depending on whether the winds about them are clockwise or counter clockwise. These lines are called isobars, and similar lines which connect points of the same temperature are frequently shown, and called isotherms. The succession of highs and lows which follow each other across the continent determine what the nature of the weather will be in the succeeding twenty-four hours. If, for example, there is a pronounced low pressure area ap-

RULES FOR THE PRIZE CONTEST

READERS are urged to consider the above questions for the July issue, and send answers to them to the Editor, MoToR BoatinG, 57th Street at Eighth Avenue, New York, N. Y. Answers should be (a) in our hands on or before May 25, (b) about 500 words long, (c) written on one side of the paper only, (d) accompanied by the senders' names and addresses.

The names will be withheld and initials used.

QUESTIONS for the next contest must reach us on or before May 15. The editor reserves the right to make such changes and corrections in the accepted answers as he may deem necessary.

The prizes are: For each of the best answers to the questions above, any article or articles sold by an advertiser advertising in the current issue of MoToR BoatinG of which the advertised price does not exceed $25, or a credit of $25 on any article which sells for more than that amount. There are two prizes—one for each question—but a contestant need send in an answer to only one if he does not care to answer both.

For answers we print that do not win a prize we pay space rates.

For each of the questions selected for use in the following month's contest, any article or articles sold by an advertiser advertising in this issue of MoToR BoatinG of which the advertised prices does not exceed $5, or a credit of $5 on any article which sells for more than that amount.

All details connected with the ordering of the prizes selected by the winners must be handled by us. The winners should be particular to specify from which advertisers they desire to have their prizes ordered.

proaching from the west which is accompanied by strong winds and rain it is absolutely certain that this same area will pass over points to the east of it in due time and rains can be safely predicted. On the other hand, a high pressure area with fine weather will pass over in exactly the same way and points along the coast in the general vicinity of New York can certainly expect generally similar weather to that which prevailed the previous day in places to the south and west of New York.

The curve of barometric pressures which is reproduced shows at the beginning of one week two very pronounced low pressure areas which followed each other in quick succession inside of thirty-six hours. Both of these lows were accompanied by decidedly strong gales with rain, and the weather changed from bad to good with the rise in barometer in both instances. It does not follow that every fall in barometric pressure will bring rain. The condition of rain will depend on the wind and humidity at the time. The atmosphere can be compared to a sponge which has the property of holding considerable water without dripping. Some forms of sponge will hold more than others and the atmosphere in exactly the same way can under conditions of a high barometer and a dense air hold more water than the rarer air which accompanies a low barometer. At times of high barometric pressure and high humidity a falling barometer brings on an area of rarer atmosphere which has a reduced capacity to hold water. As a result, the water is released and precipitated in the form of rain. Immediately when the condition changes and the barometer again begins to rise the denser air approaching will be able to hold more moisture and the rain will cease. Humidity, which is the expression for designating the amount of moisture contained in air, is expressed in percentages and 60 per cent is considered about normal. Frequently in hot summer weather the humidity rises to very high points and this accounts for the discomfort which we all feel at such times. The atmosphere is already loaded with as much water as it will hold and the rate of evaporation is reduced to a negligible point at such times.

When the wind changes its direction, it is a trustworthy indication of the weather changes. In the summer these winds have not the same strength as is the case in the winter and the light variable winds of summer time cannot be considered quite as reliable. It is of course quite generally known that winds from easterly directions with a falling barometer indicate bad weather, and contrarywise when the wind shifts to the westward, it indicates the return of a high pressure area with improved weather. Winds which come steadily from the south bring warmer weather, while northerly winds bring colder weather. The changing direction of winds comes about when the center of a low pressure area passes the observer, and since the winds are designated by the name of the compass point from which they come, a low pressure area would approach with easterly winds which would change to westerly as the low pressure area passes.

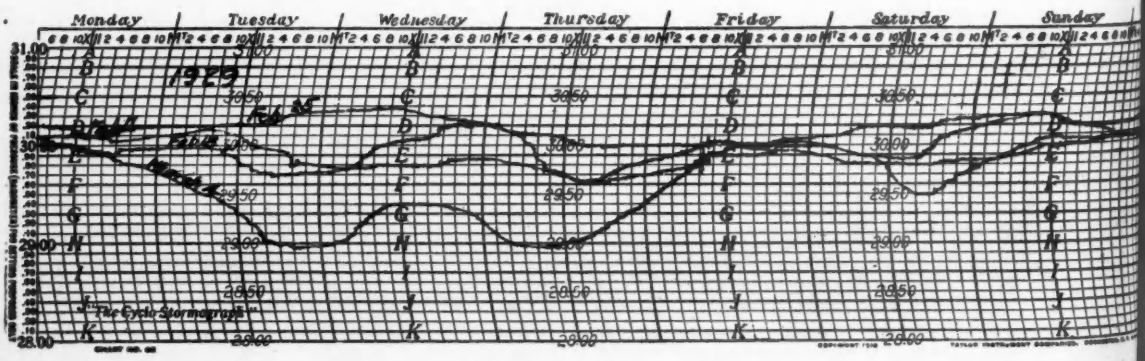
Another factor of importance in connection with winds is the heat produced by the sunshine during the day and the corresponding coolness at night. Adjacent to the sea this daily variation is much more apparent than at inland points. Land areas have their temperatures increased ever so much more than the water areas, and this causes currents of air to rise over the land which is replaced by the cooler air flowing in from the sea. At night the land loses its heat more rapidly and the air currents are reversed with the stream flowing out to sea.

An indication of breezes of this nature is that when the wind comes with the sunrise it is quite likely to go down with the sun, but on the other hand a wind arising at sundown is likely to continue through the night and next day. The explanation of this is that in the first instance it is merely the daily flow of air caused by temperature changes, while the wind coming at night is a barometric change which is a stronger influence and likely to continue.

Winds are of varying strengths and are classified on shipboard by what is known as the Beaufort scale. This is graduated from zero to twelve and the table which follows will indicate the designation, velocity and unit pressures for these various forces.

Force	*Designation*	*Miles per Hour*	*Pressure, Lbs. per Sq. Ft.*
0	Calm	From 0 to 3	...
1	Light air	Over 3 to 8	...
2	Light breeze or wind	Over 8 to 13	...
3	Gentle breeze or wind	Over 13 to 18	1.3
4	Moderate breeze or wind	Over 18 to 23	...
5	Fresh breeze or wind	Over 23 to 28	...
6	Strong breeze or wind	Over 28 to 34	6
7	Moderate gale	Over 34 to 40	...
8	Fresh gale	Over 40 to 48	13
9	Strong gale	Over 48 to 56	...
10	Whole gale	Over 56 to 65	...
11	Storm	Over 65 to 75	28
12	Hurricane	Over 75	40

(*Continued on page* 130)



Reproduction of a Stormograph chart showing several weeks trace of the barometric pressure as recorded near New York City. Note the steep gradients, week of March 4, which were accompanied by winds of gale force

PROTECTION FOR THE BOAT

Simple Devices Suggested by Clever Readers to Keep Intruders Off the Boat When at Moorings

Answers to the Following Question Published in the March Issue

Describe the construction and installation of an effective but simple Burglar Alarm for small boats

A Burglar Alarm

(The Prize-Winning Answer)

THE essential requirements for a burglar alarm for small boats are simple enough but the installation for such protection should not be too simple if it is to be efficient.

The system must be positive enough to operate readily but not so delicate as to require a great amount of adjustment. The entire mechanism should be concealed and tamperproof but its alarm unit prominently located and not muffled by attempted concealment.

All these requirements are fulfilled by the electrically operated gong actuated by pressure upon the cockpit floor. Since the alarm unit is completely weatherproof and cannot be readily removed or injured by trespassers, it can be placed upon the forward deck, as shown in Fig. III, entirely exposed excepting the ringing mechanism, which is located behind the decking. To strengthen the assembly, a filler block is fastened between the carlines and the gong is bolted through this block.

A short length of pipe is fitted through and about ½ inch above the deck as a water stop and to prevent meddling with the ringing hammer from the deck.

The wires are carried from this unit to the main switch and battery and to an alarm switch beneath the cockpit flooring. The placing of this unit will depend wholly upon the arrangement of the cockpit.

Two adjacent sections of flooring should be arranged as shown in Fig. I, with a lap joint where they rest upon a common floor beam. The common beam is pivoted at the ends, using ordinary pivot window hardware and one of its upper edges should be chamfered as shown to permit it to rotate freely in one direction.

A dashboard type of push-pull electric switch is mortised into the chamfered side of the beam and wired up to the alarm gong and source of current. On the lower edge of the beam is a crank of strap iron bent to an angle of 45 degrees. This is drilled out to receive an adjusting rod running from it to the cabin, locker or other locked space. When this rod is pushed towards the beam, the latter will rotate 90 deg. leaving its side into which the switch has been mortised upwards with button on top.

This leaves each floor section supported at its outward end and middle but unsupported where the two sections join so that the downward pressure of a footstep will depress them and close the switch which sounds the alarm continuously until either this or the main switch is opened.

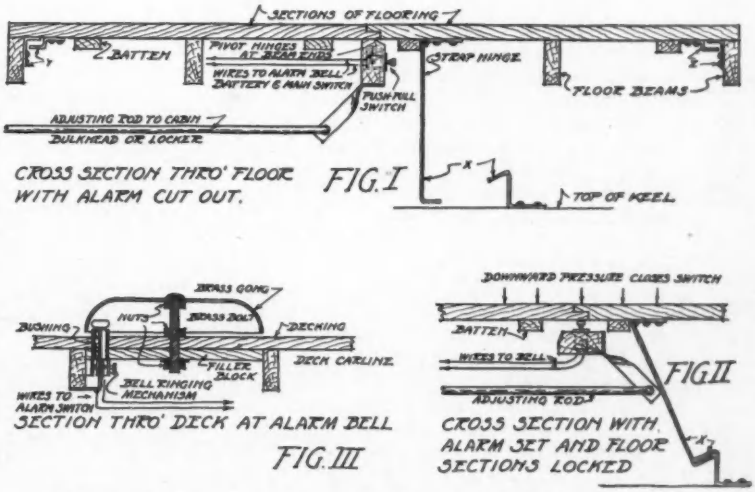
As an added precaution the locking members X, Y, Z may be used. Y and Z are fixed and merely prevent the lifting of the outward ends of the floor sections while X is locked. The operation of the lock X is automatic with the setting of the alarm, since the pushing over of the adjusting rod and arm pushes the strap hinge from its position shown in Fig. I to that shown in Fig. II, engaging the two locking members and effectively preventing the flooring from being lifted at the joint over the alarm switch.

Many variations of detail are possible using this system but with the general principles outlined all of the requirements mentioned at the outset are adequately fulfilled.

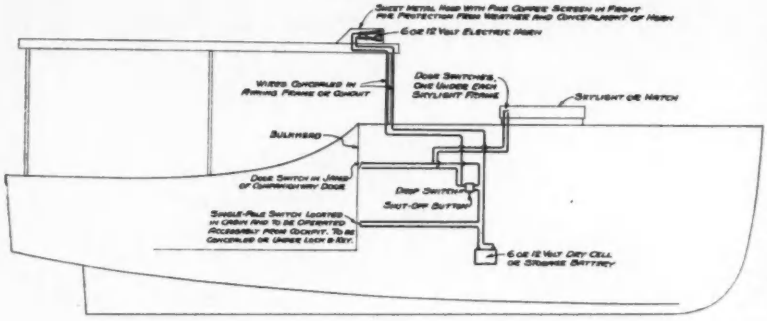
R. W. H., West Springfield, Mass.

Door and Window Switches

THE burglar alarm system shown in the accompanying illustration was installed on the writer's craft, as a result of once having the boat broken into, via the companionway door, and valuable contents confiscated. The arrangement, which in the drawing is of course diagrammatic, consists of an electric horn or siren located on the cockpit roof, con-



The floor trap suggested by R. W. H. will start an alarm when the cockpit is stepped on


Sheet Metal Hood With Fine Copper Screen in Front for Protection From Weather and Concealment of Horn
6 or 12 Volt Electric Horn
Wires Concealed in Awning Frame or Conduit
Door Switches, One Under Each Skylight Frame
Skylight or Hatch
Bulkhead
Door Switch in Jamb of Companionway Door
Drop Switch
Shut-Off Button
Single-Pole Switch Located in Cabin and to be Operated Accessibly from Cockpit. To be Concealed or Under Lock & Key.
6 or 12 Volt Dry Cell or Storage Battery

H. A. M. puts his trust in concealed switches to start the horn going

cealed in a weather-proof enclosure and operated from a 6- or 12-volt dry-cell or storage battery. At all likely places of entrance, door or window switches should be located. Door switches, which are used for hinged doors or skylights, are concealed and mortised flush in the jamb, and by means of a self-contained spring, make electrical contact when the door or skylight is opened. For transoms or drop windows, window switches are used, and mortised flush between the window sash and its frame. These work upon the same principle as the door switches and are designed to operate when the sash passes over them.

Upón operation of the horn, the first tendency of an intruder would be to close the door, skylight or window, as the case may be and thereby supposedly break the circuit and stop the alarm. To overcome this, a drop switch is installed in the cabin away from the door as shown, which by means of small self-contained electro-magnets, completes another circuit and permits the alarm to continue whether the door is again closed or allowed to remain open. The alarm will therefore continue to operate until someone breaks this newly made circuit, by pushing in the small shut-off button on the drop switch. To prevent the alarm operating when rightful parties wish to open the door, a single-pole switch is located within the cabin and its operation secretly concealed or put under lock and key. Any number of door or window switches may be located throughout the boat, however each one must be connected according to the parallel system of wiring, as shown for the wires for the skylight branching off from those leading to the switch for the door.

Exterior wiring should be concealed to prevent cutting, by running through awning frame, conduit or armored cable. Locate switches in such a manner and where there is no possibility or liklihood of short circuiting, due to leakage or drainage of water. With the sounding of the horn, an intruder would not be likely to linger long and the continuous sounding of the alarm, being unusual, would be sure to attract the attention of anyone in the vicinity.

H. A. M., Philadelphia, Pa.

A Simple Alarm System

THE arrangement and construction of a burglar alarm may be accomplished in quite a few different ways. This description and the accompanying drawings will illustrate the construction of a burglar alarm so arranged so that any attempt at casting off of the mooring hawser, cutting of the mooring hawser, or opening of the cabin door or any hatch which may be included in the alarm system, will automatically sound the boats' Klaxon or alarm bell, and continue until the burglar alarm system is reset.

In the construction of this burglar alarm it will be necessary to purchase or build a magnet coil, see the detail, consisting of two fibre heads with ½ inch diameter iron core, wound with 3 oz. No. 36 enamel wire laid in 30 layers of a total of 300 turns, placing one layer of 3 mil paper between the layers of the wire. The coil will have approximately 920 ohms resistance. The coil if purchased may have as much as 1000 ohms.

The wiring and connections are shown in the wiring diagram and are so arranged so that when the alarm is set, the one circuit is closed and the coil energized, thereby holding the armature of the coil up and keeping the bell circuit open. Should the alarm circuit be broken or opened at any point the coil will become de-energized thus allowing the armature to drop, thereby closing the bell circuit which will sound the alarm.

The contacts in the alarm circuit may be placed at all points it is desired to provide protection for, and the general arrangement may be as shown in the diagram or arranged to suit any individual condition.

Enamelled wire has been specified, as cotton covered wire will be more liable to absorb moisture. The coil should be as nearly water and air tight as possible.

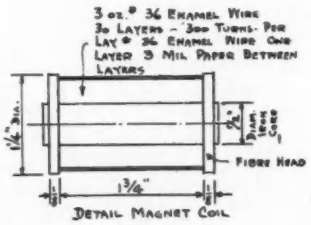
G. H., West New Brighton, N. Y.

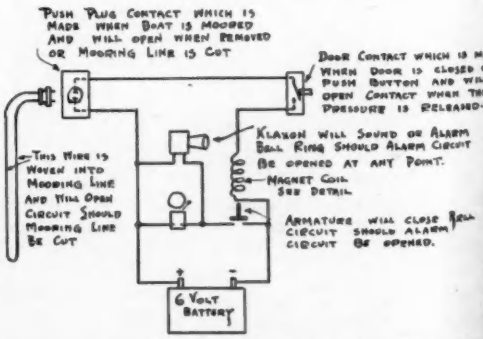
A Simple Alarm

A SIMPLE form of burglar alarm consists of an ordinary door jamb switch, much used on closet doors. When the door is opened the switch turns on a light in the closet.

In this case instead of a light being switched on the boat's horn is used as a signal. The jamb switch is set in the door jamb of the companionway, with a cutout switch incorporated in the line for the means of cutting out the device when it is not needed.

(*Continued on page* 134)


3 oz. # 36 Enamel Wire
30 Layers - 300 Turns Per Lay # 36 Enamel Wire One Layer 3 Mil Paper Between Layers
1¼" Dia.
Iron Core
Fibre Head
1¾"
Detail Magnet Coil


Push Plug Contact Which is Made When Boat is Moored and Will Open When Removed or Mooring Line is Cut
Door Contact Which is Made When Door is Closed or Push Button and Will Open Contact When the Pressure is Released.
Klaxon Will Sound or Alarm Bell Ring Should Alarm Circuit Be Opened at Any Point.
This Wire is Woven into Mooring Line and Will Open Circuit Should Mooring Line Be Cut
Magnet Coil See Detail
Armature Will Close Bell Circuit Should Alarm Circuit Be Opened.
6 Volt Battery

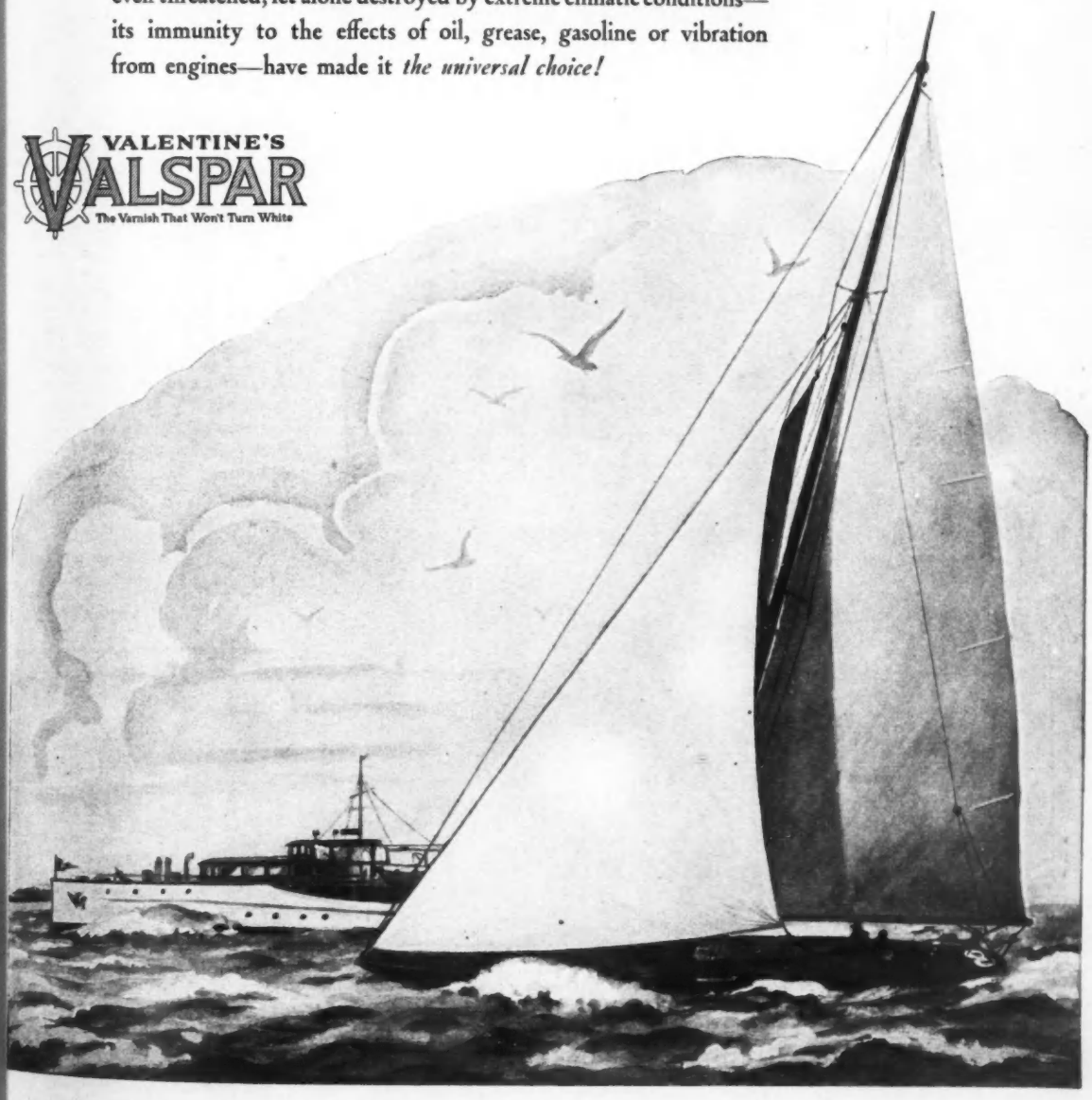
A closed circuit system by G. H. will start at any interruption of the electrical contacts

With *a bone in her teeth!*

Neptune's Horses prance across her deck. She shakes them off, only to expose her surface to a blistering summer sun. Again and again she bites into the white caps. And again and again she smiles her defiance at Old Sol. For these two scuttlers of ordinary finishes can not mar *her* beauty. *She is* VALSPARRED.

Yachtsmen and builders of fine craft all over the world know that a Valspar Finish needs no water wings nor sun glasses. They are convinced that Valspar is there—active, participating, *essential!* Valspar's smooth, lustrous beauty—its protective properties never even threatened, let alone destroyed by extreme climatic conditions—its immunity to the effects of oil, grease, gasoline or vibration from engines—have made it *the universal choice!*

VALENTINE'S
VALSPAR
The Varnish That Won't Turn White



Monte Carlo has excellent facilities for boat racing and American outboard engines seem to furnish the power for several hydroplanes and runabouts in our illustration

YARD AND SHOP

Notes of Interest to Both Owner and Manufacturer

EUGENE A. RIOTTE

EUGENE A. RIOTTE, until a few months ago, president of the Standard Motor Construction Company of Jersey City, N. J., passed away in the hospital at Miami, Fla., on April 4th, 1929.

Mr. Riotte was one of the pioneers in the marine engine business in the United States and, with his brother, the late Carl C. Riotte, organized the Standard Motor Construction Company in 1904. His engineering foresight and ability at once placed the Standard engine in the very highest rank of marine internal combustion engines.

Mr. Riotte's personal and his company's contribution toward the allied cause during the World War was of the very highest order and his patriotism and total lack of mercenary consideration was notably shown in voluntarily setting the price on a contract for several hundred engines for the submarine chasers at a reduced figure, although he had absolutely no competition because of the previous record in war service which his engines had made.

Sakaria, the fine fast cruiser owned by President Kemal Pasha of Turkey. She is fitted with two 300 h. p. Sterling Dolphins and is a very fast boat

In October, 1928, Mr. Riotte was taken ill and was confined to his bed constantly from that time, suffering from a fever which doctors were unable to understand. His loss will not only be greatly felt by the company of which he was the head for so many years, but also by the host of friends which he made.

NEW STOCK MOTOR WINS IN TWO CLASSES

At the recent races at Miami Beach, Paul Prigg, driving a twenty-two foot runabout, powered with a Gray straight eight engine, was successful in taking first place in two different classes.

The motor, rated at 110 h. p., was taken out of a dealer's stock the afternoon before the race and swinging a 14x18-inch wheel at 3200 r. p. m., led every lap in the two six-mile races for the 110 and 150 h. p. classes.

With the new motor properly limbered up and a 15x17 propeller substituted to decrease the percentage of slip, a substantial increase in speed is expected over the fast time already developed.

HEAD OF COAST SURVEY PASSES ON

On April 9, Colonel E. Lester Jones, director of the United States Coast and Geodetic Survey for the past fourteen years, died at his home after an extended illness.

As an expert in hydrographic and geodetic work, Colonel Jones rendered service of inestimable value to the gov-

When Sea-going Appetites are matched against the galley's best

WHAT if your guests don't know a halyard from a capstan! Fly a mess pennant, Cap'n, and they're down the hatch as soon as the saltiest tar.

Then let's hope your galley is as smartly rigged as your tops. Here social inspection is held three times a day. The landlubbers may declare (salt air being what it is) that they would relish fried nails on a paper plate, but your fame and your craft's treble when they find good vittles served on Ovington's yacht china, tattooed with the flags of your club and your craft.

If it were very expensive, there would be some excuse for not having it, but the cost does not run aloft. At Ovington's you can get a dinner set, complete for six, emblazoned with your club and yacht flags for as little as $100. And crystal goblets to match, able seamen all, who will ship with you for $50.

Three weeks from the day you request designs your galley will be seaworthy in the highest social sense of the term.

"Gifts from all over the World"

OVINGTON'S

437 Fifth Avenue
New York

Telephone: Caledonia 8702

ernment and in his capacity as head of the Coast Survey, his work was nationally recognized.

MODERN MARINE ENGINES

The Scripps Motor Company, long famous as the builders of the motor which powered the first motor boat to cross the Atlantic, have developed an unusually fine series of new marine engines. To illustrate them and present them to the public, an interesting and complete booklet has been prepared, a copy of which may be secured by writing to the Scripps Company, at Detroit, Michigan. Power for every type of hull is available with models ranging from ten to two hundred horse power.

CONSOLIDATION ANNOUNCED

Announcement is made of the consolidation of Chenevert and Company of Detroit and the Davis Boat Company of Trenton, Michigan, into a new company to be known as the Corsair Boat Company. In the past these concerns have operated individually in the merchandising and building of the Corsair cruiser. Executive and sales offices will be located at 1030 Buhl Building, Detroit, and the yard at Trenton, Michigan.

NEW YACHT CLUB PROGRESSING RAPIDLY

Members of the Newport summer colony have taken a great deal of interest in the Ida Lewis Yacht Club, which will be established this summer at the former Lime Rock Lighthouse. All available life memberships have already been taken up.

A new pier is to be constructed, 698 feet in length, at which mooring facilities for a great number of boats will be provided, with floats arranged for the storage and landing of smaller craft. Water, electric light, telephone and gas will be carried out on the pier and all conveniences arranged for the members.

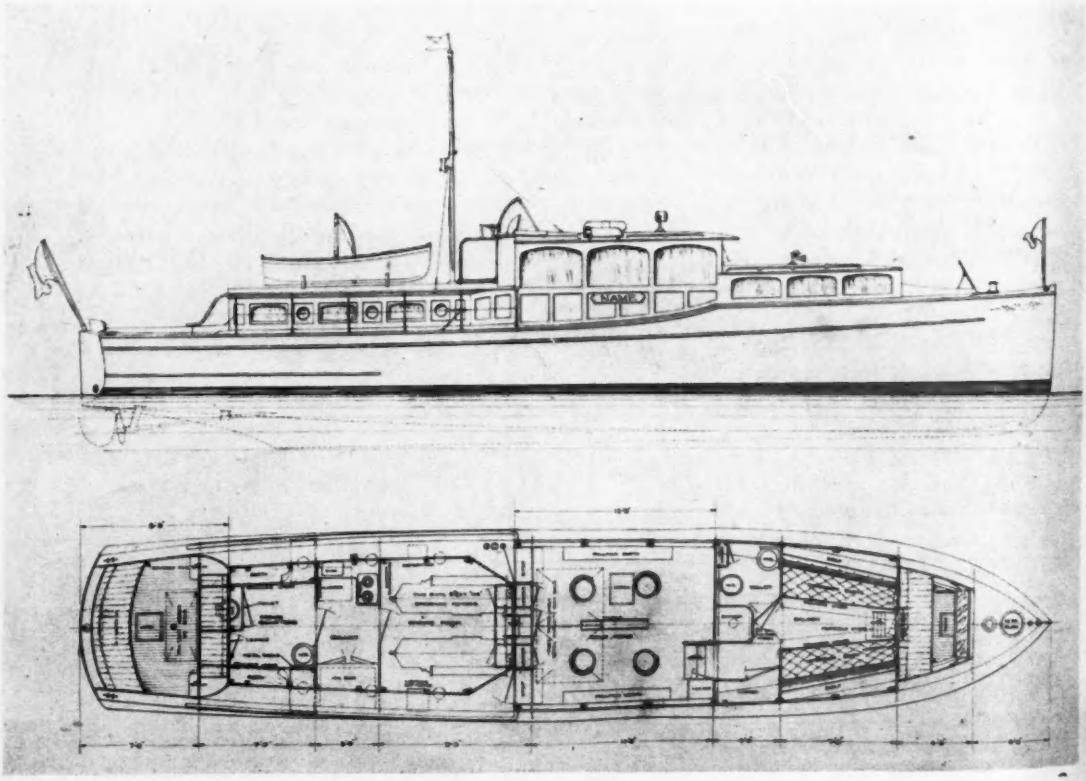
Major H. O. D. Segrave found time among his other activities in Florida to enjoy a Sea Horse powered outboard hydroplane at Daytona

WE NEED A LITTLE MORE SPORTSMANSHIP

Complaint has been made to the Steamboat Inspection Service, Department of Commerce, that a number of inconsiderate speed boat drivers have caused considerable annoyance to owners of small fishing boats, row boats and canoes, by driving their high powered craft around at reckless speed in the vicinity of bathing beaches and other places where small boats were in use.

It is understood, of course, that there is no deliberate intention on the part of these fast drivers to be the cause of any damage or annoyance to others, but rather a thoughtlessness on their part as to the effect of the danger-

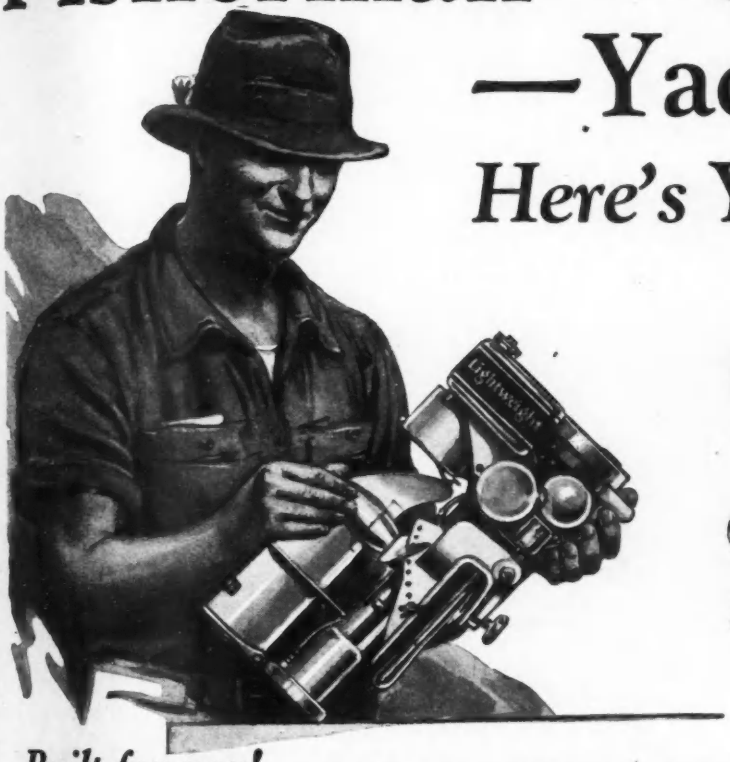
(*Continued on page* 126)



A speedy 58-foot commuter designed by the Consolidated Shipbuilding Corporation and powered with two of their 180 h. p. Speedway engines which will drive her 25 miles.

Fisherman — Cottager —Yachtsman

Here's Your Motor!



Price $150.00

Built for you! In compactness and light weight, in power and rugged simplicity, the Super Elto Lightweight is made-to-measure to fit your requirements.

It folds —"folds like a jackknife"— so that you can take it anywhere, slipping its small dimensions into space where no other motor could go. *Easy to carry,* for it weighs only 38 pounds! *Full-powered* for the boats you use; liberal 3 horsepower! *Starting ease* you've never known before — just a 3-inch flip of the flywheel! And quiet— *really quiet* —with a new-type oversize muffler.

Beyond question, the Lightweight is the industry's outstanding achievement in handy, dependable, small-package power. The complete catalog is yours on request.

The Super Elto Lightweight

Mail the coupon!

ELTO DIVISION
OUTBOARD MOTORS CORPORATION
Ole Evinrude, *President*
Mason Street, Dept. F, Milwaukee, Wisconsin

Send me the Lightweight Catalog.

Name_____

Address_____

_____

Prices Talk

mass production makes Gray prices possible

Volume Production—coupled with precision methods and engineering leadership are responsible for the great value Gray gives—value that is the talk of the marine world.

Gray prices are lower. **Yet the experience of thousands of users—the world over—for the past twenty-three years—proves Gray undisputed champion in the field of quality marine motors.**

Volume Production—precision methods—engineering leadership have made Gray what it is *today*.

GRAY MOTORS

Built by Pioneers ~ Engineers ~ Leaders

Advertising index will be found on 3rd last page

Gray "8"

makes 'em "sit up"

PATRONS ARE REQUESTED TO FAVOR THE COMPANY BY CRITICISM AND SUGGESTION CONCERN

CLASS OF SERVICE

This is a full-rate Telegram, or Cable-gram, unless its deferred character is indicated by a suitable sign above or preceding the address.

WESTERN UNION

NEWCOMB CARLTON, PRESIDENT — A. C. WILLEVER, FIRST VICE-PRESIDENT

SIONS

DL = Day Letter
NM = Night Message
NL = Night Letter
LCO = Deferred Cable
CLT = Cable Letter
WLT = Week-End Letter

STANDARD TIME.

The filing time as shown in the date line on full-rate telegrams and day letters, and the time of receipt at destination as shown on all messages, is

Received at 6317 E. Jefferson Ave., Detroit, Mich. Edgewood 1538

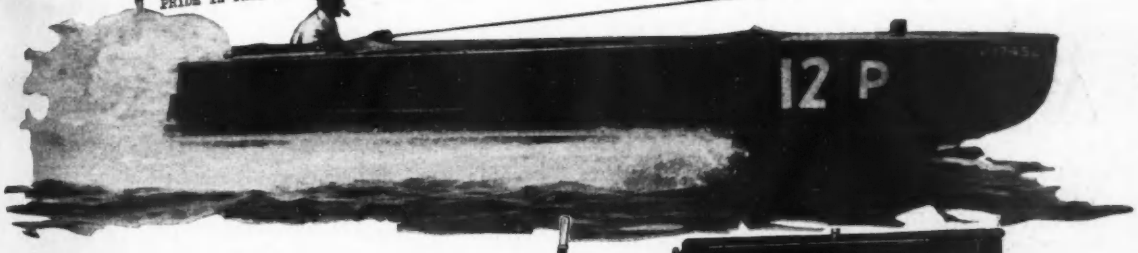
March 21, P.M. 6.

XG 24 16 COLLECT MIAMI 143c 1929

GRAY MARINE MOTOR CO
DETROIT MICH

GRAY WON TWO FIRSTS TODAY WINNING BOTH 110 AND 150 HORSEPOWER CLASS IN MIAMI RACES STOP PAUL PRIGG DRIVING GRAY EIGHT IN TWENTY TWO FOOTER BEAT EVERY CONTESTANT IN EVERY LAP OF THE TWO SIX MILE RACES TODAY TURNING FOURTEEN BY EIGHTEEN HYDE PROPELLER THREE THOUSAND TWO HUNDRED REVOLUTIONS GRAY EIGHT LED EVERY ROUND MOTOR BRAND NEW TAKEN OUT OF DISTRIBUTORS SHOW ROOM STOCK AFTERNOON PREVIOUS TO RACE OLD TIMERS ENTHUSIASTIC COMPETITORS SURPRISED CHAGRINED STOP ENTHUSIASM FOR GRAY UNPARALLELED BY ANY PREVIOUS MOTOR SUCCESS IN MIAMI SATISFIED THAT AFTER LIMBERING UP MOTOR AND CHANGING TO FIFTEEN BY SEVENTEEN PROPELLER CAN INCREASE SPEED AS WE HAD TOO MUCH SLIP AND SOME CAVITATION ALL OWNERS OF GRAY EIGHTS IN FLORIDA TAKING GREAT PRIDE IN THIS NEW S[illegible]SS EACH CLAIMING GRAY EIGHT BEST MOTOR HE EVER USED

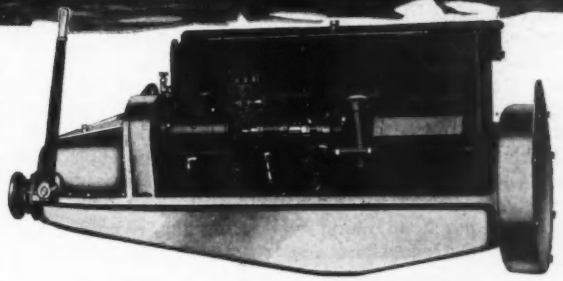
HENRY A POHL



From showroom stock to victory within twenty-four hours. That's the record of the Mighty Gray Eight which powered Paul Prigg's twenty-two foot runabout, winner of heats in both the 150 H. P. runabout race and the 110 H. P. runabout race at the Miami Beach Regatta.

Twenty hours before race starting time, this motor was taken from the stock of Henry A. Pohl, Miami Gray Dealer. When installed, Paul Prigg reported immediately at the starting line. There was no time remaining for preliminary limbering up of the motor. Yet this Gray-powered craft lead every contestant in every lap.

Gray engineers have achieved in the Gray Eight the mightiest, fastest marine power plant per pound of weight and per dollar of price on the market today, plus a velvet smooth flow of power that only eight cylinders can give.



The Gray Eight—129 H. P. Bore, 3⅛". Stroke, 4½". Displacement, 322 Cu. In. Weight (aluminum) 830 lbs. Weight (Iron) 900 lbs.

Price $1200

Gray Marine Motor Company

680 Canton Avenue, Detroit, Michigan

Baltimore, Md., Mahon & Gall, Pratt & Gay Sts.
Boston, Mass., Gray-Aldrich Co., 6 Commercial Wharf.
Chicago, Ill., A. M. Deering, 1454 Builders Bldg.
Los Angeles, Calif., Chas. E. Smith, 504 American Bank Bldg., 129 W. 2nd St.
Miami, Fla., Henry A .Pohl, 226 S. W. 6th St.
New Orleans, La., Higgins Industries, 539 Carondelet Ave.

New York, N. Y., Bowler, Holmes & Hecker, 259 Greenwich St.
Philadelphia, Pa., Johnson & Towers, 126 Arch St.
San Francisco, Calif., The Thomson Machine Works, 235 First St.
Seattle, Wash., Richard Froboese Co., 83 Marion St.
Toronto, Ontario, Can., Gray Marine Motor Co. of Canada, Ltd., 77 Adelaide Street, West.

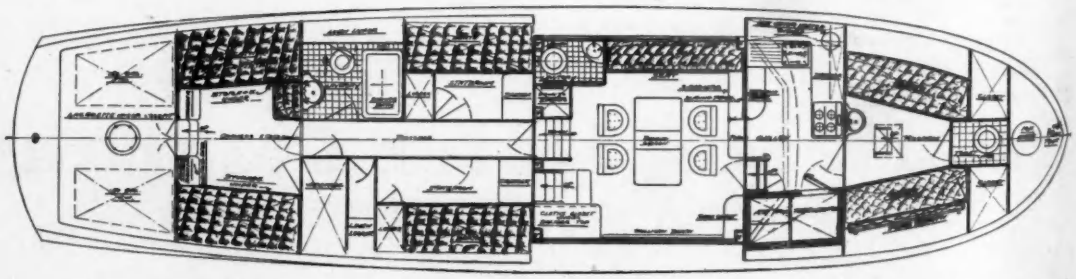
The large show room building of the Fleetwing Corporation on the bank of the Hudson River

A RIVERSIDE SHOW ROOM

New Fleetwing Motor Boat Mart on Hudson River Offers Exceptional Display and Service Facilities to Potential Boat Owners

A BOAT show room and Service Station combined on the Hudson River, the only one of its kind on Manhattan Island. The Fleetwing Yacht and Shipbuilding Corporation, of which Frank V. Borick is President and Theodore W. Brigham, Vice-President, designers and builders of the well known Fleetwing Fleet are the pioneers in this worthy enterprise. The main building comprises 6500 feet of floor space for the exclusive exhibition of boats ranging from a Dee Wite Outboard up to a 75 foot diesel engined Yacht. The headroom is 35 feet, without a post. The handsome offices are located on a balcony overlooking the Showroom and comprise a Reception Room, Clerical Office, two private offices, designing room, etc. Shower baths have also been installed.

A roomy porch adjoining and facing the river is now being constructed and a stairway and float stage are being put into place. Telephones for the convenience of visitors are promised and a private roadway is now under construction leading up to the smooth planked docks along the bulkhead line which is encountered coming down 158th Street and under the new Riverside Drive Viaduct, recently opened. Two sets of marine railways and a service slip are provided, also ample storage space for the winter. Pedestrians can reach the yard by Subway to 145th or 157th Street stations. Crossings over the New York Central Railroad are provided by two bridges, one at 151st Street and the other at 156th Street. In visiting the Fleetwing Boat Mart, at 153rd Street and the Hudson River, one can be assured of spending a pleasant afternoon or evening in a perfect boating environment not to be had anywhere else in Manhattan. Show room and Service open at all times.



Arrangment plan of the new Fleetwing 55, several of which are being completed. Twin Buda reduction gear engines are used

GOOD FITTINGS

The Sign of a Well-Planned Craft

The Model 16 Sea Sled pictured above has well earned its enviable reputation. Speed, sea-worthiness and beauty have combined to win popular approval. It is Wilcox-Crittenden equipped, as a matter of course.

ESTABLISHED 1847

It's not merely the polish on the woodwork or the comfort of the upholstery that decides and wins public approval. The careful selection of every part and fitting with an eye to staunchness and dependability as well as trimness and beauty, the painstaking attention to every detail -- these are the things that enable a craft to stand the acid test of hard usage and rough seas, that earn widespread popularity.

As experienced seamen will tell you, "Good fittings are the sign of a well-planned craft." They know that in a critical moment the safety of a boat often depends on the seaworthiness of some small item, that often a craft is no better than its poorest fitting.

Good boat builders show that they realize the importance of the best in fittings. So often you hear them say to the prospective buyer, "Of course W-C Hardware is used throughout."

The best dealers everywhere carry W-C Dependable Marine Hardware. Let them help you select the items you need. Or if you prefer to write us, we will advise you.

WILCOX, CRITTENDEN & CO.
INCORPORATED
4 South Main St.
Middletown - - - Connecticut

MILES PER HOUR FOR DISTANCE OF 2.5 MILES

SEC.	2 MIN.	Diff.	3 MIN	Diff	4 MIN.	Diff	5 MIN	Diff	6 MIN.	Diff	7 MIN.	Diff	8 MIN.	Diff	9 MIN.	Diff	10 MIN.	Diff	11 MIN.	Diff	12 MIN.	Diff
0	75.00	.62	50.00	.28	37.50	.16	30.00	.10	25.00	.07	21.43	.05	18.75	.04	16.67	.03	15.00	.02	13.64	.02	12.50	.02
1	74.38	.61	49.72	.28	37.34	.16	29.90	.10	24.93	.07	21.38	.05	18.71	.04	16.64	.03	14.98	.02	13.62	.02	12.48	.02
2	73.77	.61	49.45	.27	37.19	.15	29.80	.10	24.86	.07	21.33	.05	18.67	.04	16.61	.03	14.95	.03	13.60	.02	12.47	.01
3	73.17	.60	49.18	.27	37.04	.15	29.70	.10	24.79	.07	21.28	.05	18.63	.04	16.57	.04	14.93	.02	13.57	.03	12.45	.02
4	72.58	.59	48.91	.27	36.89	.15	29 61	.09	24.73	.06	21.23	.05	18.60	.03	16.54	.03	14.90	.03	13.55	.02	12.43	.02
5	72.00	.58	48.65	.26	36.73	.16	29.51	.10	24.66	.07	21.18	.05	18.56	.04	16.51	.03	14.88	.02	13.53	.02	12 41	.02
6	71.43	.57	48.39	.26	36.59	.14	29.41	.10	24.59	.07	21.13	.05	18.52	.04	16.48	.03	14.85	.03	13.51	.02	12.40	.01
7	70.87	.56	48.13	.26	36.44	.15	29.32	.09	24.52	.07	21.08	.05	18.48	.04	16.45	.03	14.83	.02	13.49	.02	12.38	.02
8	70.31	.56	47.87	.26	36.29	.15	29.22	.10	24.46	.06	21.03	.05	18.44	.04	16.42	.03	14.80	.03	13.47	.02	12.36	.02
9	69.77	.54	47.62	.25	36.14	.15	29.13	.09	24.39	.07	20.98	.05	18.40	.04	16.39	.03	14 78	.02	13.45	.02	12.35	.01
10	69.23	.54	47.37	.25	36.00	.14	29.03	.10	24.32	.07	20.93	.05	18.37	.03	16.36	.03	14.75	.03	13.43	.02	12.33	.02
11	68.70	.53	47.12	.25	35.86	.14	28.94	.09	24.26	.06	20.88	.05	18.33	.04	16.33	.03	14.73	.02	13.41	.02	12.31	.02
12	68.18	.52	46.88	.24	35.71	.15	28.85	.09	24.19	.07	20.83	.05	18.29	.04	16.30	.03	14.71	.02	13.39	.02	12.30	.01
13	67.67	.51	46.63	.25	35.57	.14	28.75	.10	24.13	.06	20.79	.04	18.26	.03	16.27	.03	14.68	.03	13.37	.02	12.28	.02
14	67.16	.51	46.39	.24	35.43	.14	28.66	.09	24.06	.07	20.74	.05	18.22	.04	16.25	.02	14.66	.02	13.35	.02	12.26	.02
15	66.67	.49	46.15	.24	35.29	.14	28.57	.09	24.00	.06	20.69	.05	18.18	.04	16.22	.03	14.63	.03	13.33	.02	12.24	.02
16	66.18	.49	45.92	.23	35.16	.13	28.48	.09	23.94	.06	20.64	.05	18.15	.03	16.19	.03	14.61	.02	13.31	.02	12.23	.01
17	65.69	.49	45.69	.23	35.02	.14	28.39	.09	23.87	.07	20.59	.05	18.11	.04	16.16	.03	14.59	.02	13.29	.02	12.21	.02
18	65.22	.47	45.45	.24	34.88	.14	28.30	.09	23.81	.06	20.55	.04	18.07	.04	16.13	.03	14.56	.03	13.27	.02	12.20	.01
19	64.75	.47	45.23	.22	34.75	.13	28.21	.09	23.75	.06	20.50	.05	18.04	.03	16.10	.03	14.54	.02	13.25	.02	12 18	.02
20	64.29	.46	45.00	.23	34.62	.13	28.13	.08	23.68	.07	20.45	.05	18.00	.04	16.07	.03	14.52	.02	13.24	.01	12.16	.02
21	63.83	.46	44.78	.22	34.48	.14	28.04	.09	23.62	.06	20.41	.04	17.96	.04	16.04	.03	14.49	.03	13.22	.02	12.15	.01
22	63.38	.45	44.55	.23	34.35	.13	27.95	.09	23.56	.06	20.36	.05	17.93	.03	16.01	.03	14.47	.02	13.20	.02	12.13	.02
23	62.94	.44	44.33	.22	34.22	.13	27.86	.09	23.50	.06	20.32	.04	17.89	.04	15.99	.02	14.45	.02	13.18	.02	12.11	.02
24	62.50	.44	44.12	.21	34.09	.13	27.78	.08	23.44	.06	20.27	.05	17.86	.03	15.96	.03	14.42	.03	13.16	.02	12.10	.01
25	62.07	.43	43.90	.22	33.96	.13	27.69	.09	23.38	.06	20.22	.05	17.82	.04	15.93	.03	14.40	.02	13.14	.02	12.08	.02
26	61.64	.43	43.69	.21	33.83	.13	27.61	.08	23.32	.06	20.18	.04	17.79	.03	15.90	.03	14.38	.02	13.12	.02	12.06	.02
27	61.22	.42	43.48	.21	33.71	.12	27.52	.09	23.26	.06	20.13	.05	17 75	.04	15.87	.03	14.35	.03	13.10	.02	12.05	.01
28	60.81	.41	43.27	.21	33.58	.13	27.44	.08	23.20	.06	20.09	.04	17 72	.03	15.85	.02	14.33	.02	13.08	.02	12.03	.02
29	60.40	.41	43.06	.21	33.46	.12	27.36	.08	23.14	.06	20.04	.05	17.68	.04	15.82	.03	14.31	.02	13.06	.02	12.02	.01
30	60.00	.40	42.86	.20	33.33	.13	27.27	.09	23.08	.06	20.00	.04	17.65	.03	15.79	.03	14.29	.02	13 04	.02	12.00	.02
31	59.60	.40	42.65	.21	33.21	.12	27.19	.08	23.02	.06	19.96	.04	17.61	.04	15.76	.03	14.26	.03	13.02	.02	11.98	.02
32	59.21	.39	42.45	.20	33.09	.12	27.11	.08	22.96	.06	19.91	.05	17.58	.03	15.73	.03	14.24	.02	13.00	.02	11.97	.01
33	58.82	.39	42.25	.20	32.97	.12	27.03	.08	22.90	.06	19.87	.04	17.54	.04	15.71	.02	14.22	.02	12.99	.01	11.95	.02
34	58.44	.38	42.06	.19	32.85	.12	26.95	.08	22.84	.06	19.82	.05	17.51	.03	15.68	.03	14.20	.02	12.97	.02	11.94	.01
35	58.06	.38	41.86	.20	32.73	.12	26.87	.08	22.78	.06	19.78	.04	17.48	.03	15.65	.03	14.17	.03	12.95	.02	11.92	.02
36	57.69	.37	41.67	.19	32.61	.12	26.79	.08	22.73	.05	19.74	.04	17.44	.04	15.63	.02	14.15	.02	12.93	.02	11.90	.02
37	57.32	.37	41.47	.20	32.49	.12	26.71	.08	22.67	.06	19.69	.05	17.41	.03	15.60	.03	14.13	.02	1291	.02	11.89	.01
38	56.96	.36	41.28	.19	32.37	.12	26.63	.08	22.61	.06	19.65	.04	17.37	.04	15.57	.03	14.11	.02	12.89	.02	11.87	.02
39	56.60	.36	41.10	.18	32.26	.11	26.55	.08	22.56	.05	19.61	.04	17.34	.03	15.54	.03	14.08	.03	12.88	.01	11.86	.01
40	56.25	.35	40.91	.19	32.14	.12	26.47	.08	22.50	.06	19.57	.04	17.31	.03	15.52	.02	14.06	.02	12.86	.02	11.84	.02
41	55.90	.35	40.72	.19	32.03	.11	26.39	.08	22.44	.06	19.52	.05	17.27	.04	15.49	.03	14.04	.02	12.84	.02	11.83	.01
42	55.56	.34	40.54	.18	31.91	.12	26.32	.07	22.39	.05	19.48	.04	17.24	.03	15.46	.03	14.02	.02	12.82	.02	11.81	.02
43	55.21	.35	40.36	.18	31.80	.11	26.24	.08	22.33	.06	19.44	.04	17.21	.03	15.44	.02	14.00	.02	12.80	.02	11.80	.01
44	54.88	.33	40.18	.18	31.69	.11	26.16	.08	22.28	.05	19.40	.04	17.18	.03	15.41	.03	13.98	.02	12.78	.02	11.78	.02
45	54.55	.33	40.00	.18	31.58	.11	26.09	.07	22.22	.06	19.35	.05	17.14	.04	15.38	.03	13.95	.03	12.77	.01	11.76	.02
46	54.22	.33	39.82	.18	31.47	.11	26.01	.08	22.17	.05	19.31	.04	17.11	.03	15.36	.02	13.93	.02	12.75	.02	11.75	.01
47	53.89	.33	39.65	.17	31.36	.11	25.94	.07	22.11	.06	19.27	.04	17.08	.03	15.33	.03	13.91	.02	12.73	.02	11.73	.02
48	53.57	.32	39.47	.18	31 25	.11	25.86	.08	22.06	.05	19.23	.04	17.05	.03	15.31	.02	13.89	.02	12.71	.02	11.72	.01
49	53.25	.32	39.30	.17	31.14	.11	25.79	.07	22.00	.06	19.19	.04	17.01	.04	15.28	.03	13.87	.02	12.69	.02	11.70	.01
50	52.94	.31	39.13	.17	31.03	.11	25.71	.08	21.95	.05	19.15	.04	16.98	.03	15.25	.03	13.85	.02	12.68	.01	11.69	.01
51	52.63	.31	38.96	.17	30.93	.10	25.64	.07	21.90	.05	19.11	.04	16.95	.03	15.23	.02	13.82	.03	12.66	.02	11.67	.02
52	52.33	.30	38.79	.17	30.82	.11	25.57	.07	21.84	.06	19.07	.04	16.92	.03	15.20	.03	13.80	.02	12.64	.02	11.66	.01
53	52.02	.31	38.63	.16	30.72	.10	25.50	.07	21.79	.05	19.03	.04	16.89	.03	15.18	.02	13 78	.02	12.62	.02	11.64	.02
54	51.72	.30	38.46	.17	30.61	.11	25.42	.08	21.74	.05	18.99	.04	16.85	.04	15.15	.03	13.76	.02	12.61	.01	11.63	.01
55	51.43	.29	38.30	.16	30.51	.10	25.35	.07	21.69	.05	18.95	.04	16.82	.03	15.13	.02	13.74	.02	12.59	.02	11.61	.02
56	51.14	.29	38.14	.16	30.41	.10	25.28	.07	21.63	.06	18.91	.04	16.79	.03	15.10	.03	13.72	.02	12.57	.02	11.60	.01
57	50.85	.29	37.97	.17	30.30	.11	25.21	.07	21.58	.05	18.87	.04	16.76	.03	15.08	.02	13.70	.02	12.55	.02	11.58	.02
58	50.56	.29	37.82	.15	30.20	.10	25.14	.07	21.53	.05	18.83	.04	16.73	.03	15.05	.03	13.68	.02	12.53	.02	11.57	.01
59	50.28	.28	37.66	.16	30.10	.10	25.07	.07	21.48	.05	18.79	.04	16.70	.03	15.03	.02	13.66	.02	12.52	.01	11.55	.02
60	50.00	.28	37.50	.16	30.00	.10	25.00	.07	21.43	.05	18.75	.04	16.67	.03	15.00	.03	13.64	.02	12.50	.02	11.54	.01

Table giving the miles per hour over a 2½ mile course from which speeds can be quickly read

(*Continued from page 49*)

some of the earlier pages.

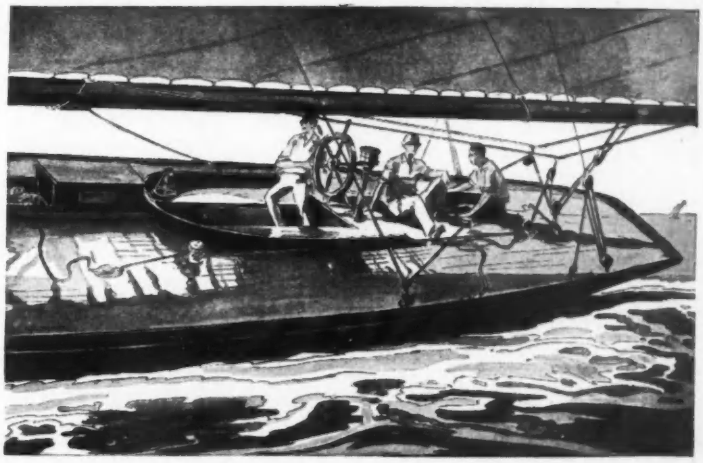
At the start of each race the scorers fill out the blank form at the head of their score sheets. This gives the name of the event, the time of start, number of laps, length of the race and so forth. As the boats complete the first lap the scorers enter in the column headed *First Lap* the names or racing numbers of the boats in the order in which they cross the line. The same procedure is followed at each lap. There will be little or no confusion except in long races of many laps in which several contestants will be certain to gain one or more complete laps on others. In such races it is best to have the assistant chief timer make a record of the number of laps completed by each boat and keep the scorers straight as to the number of laps each contestant has completed as she approaches the line each time.

The three timers are (*Continued on page 74*)

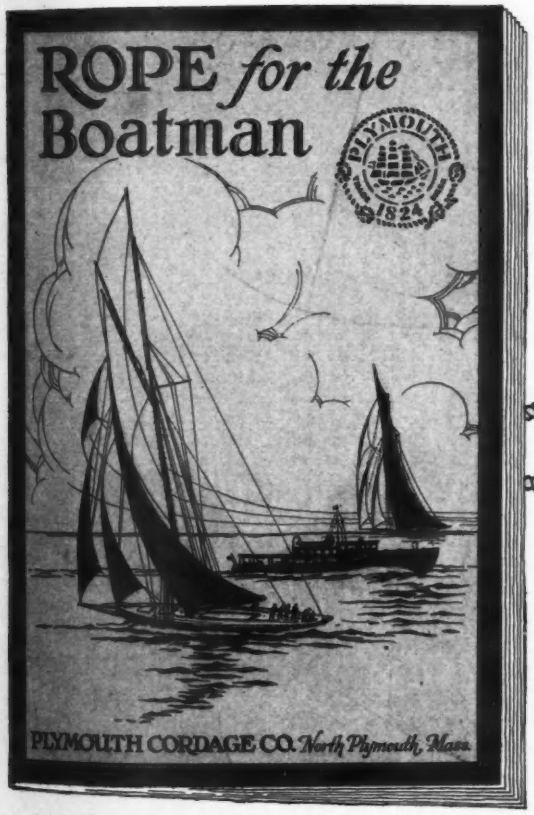
Tidy decks

Glistening spars

Shining brass work



and PLYMOUTH MANILA YACHT ROPE



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MILES PER HOUR FOR DISTANCE OF 5 MILES

	4 MIN.		5 MIN.		6 MIN.		7 MIN.		8 MIN.		9 MIN		10 MIN.		11 MIN		12 MIN		13 MIN		14 MIN	
0	75.00	Diff	60.00	Diff	50.00	Diff	42.86	Diff	37.50	Diff	33.33	Diff	30.00	Diff	27.27	Diff	25.00	Diff	23.08	Diff	21.48	Diff
1	74.69	.31	59.80	.20	49.86	.14	42.76	.10	37.42	.08	33.27	.06	29.95	.05	27.23	.04	24.97	.03	23.05	.03	21.40	.03
2	74.38	.31	59.60	.20	49.72	.14	42.65	.11	37.34	.08	33.21	.06	29.90	.05	27.19	.04	24.93	.04	23.02	.03	21.38	.02
3	74.07	.31	59.40	.20	49.59	.13	42.55	.10	37.27	.07	33.15	.06	29.85	.05	27.15	.04	24.90	.03	22.99	.03	21.35	.03
4	73.77	.30	59.21	.19	49.45	.14	42.45	.10	37.19	.08	33.09	.06	29.80	.05	27.11	.04	24.86	.04	22.96	.03	21.33	.02
5	73.47	.30	59.02	.19	49.32	.13	42.35	.10	37.11	.08	33.03	.06	29.75	.05	27.07	.04	24.83	.03	22.93	.03	21.30	.03
6	73.17	.30	58.82	.20	49.18	.14	42.25	.10	37.04	.07	32.97	.06	29.70	.05	27.03	.04	24.79	.04	22.90	.03	21.28	.02
7	72.87	.30	58.63	.19	49.05	.13	42.15	.10	36.96	.08	32.91	.06	29.65	.05	26.99	.04	24.76	.03	22.87	.03	21.25	.03
8	72.58	.29	58.44	.19	48.91	.14	42.06	.09	36.89	.07	32.85	.06	29.61	.04	26.95	.04	24.73	.03	22.84	.03	21.23	.02
9	72.29	.29	58.25	.19	48.78	.13	41.96	.10	36.81	.08	32.79	.06	29.56	.05	26.91	.04	24.69	.04	22.81	.03	21.20	.03
10	72.00	.29	58.06	.19	48.65	.13	41.86	.10	36.73	.08	32.73	.06	29.51	.05	26.87	.04	24.66	.03	22.78	.03	21.18	.02
11	71.71	.29	57.88	.18	48.52	.13	41.76	.10	36.66	.07	32.67	.06	29.46	.05	26.83	.04	24.62	.04	22.76	.02	21.15	.03
12	71.43	.28	57.69	.19	48.39	.13	41.67	.09	36.59	.07	32.61	.06	29.41	.05	26.79	.04	24.59	.03	22.73	.03	21.13	.02
13	71.15	.28	57.51	.18	48.26	.13	41.57	.10	36.51	.08	32.55	.06	29.36	.05	26.75	.04	24.56	.03	22.70	.03	21.10	.03
14	70.87	.28	57.32	.19	48.13	.13	41.47	.10	36.44	.07	32.49	.06	29.32	.04	26.71	.04	24.52	.04	22.67	.03	21.08	.02
15	70.59	.28	57.14	.18	48.00	.13	41.38	.09	36.36	.08	32.43	.06	29.27	.05	26.67	.04	24.49	.03	22.64	.03	21.05	.03
16	70.31	.28	56.96	.18	47.87	.13	41.28	.10	36.29	.07	32.37	.06	29.22	.05	26.63	.04	24.46	.03	22.61	.03	21.03	.02
17	70.04	.27	56.78	.18	47.75	.12	41.19	.09	36.22	.07	32.32	.05	29.17	.05	26.59	.04	24.42	.04	22.58	.03	21.00	.03
18	69.77	.27	56.60	.18	47.62	.13	41.10	.09	36.14	.08	32.26	.06	29.13	.04	26.55	.04	24.39	.03	22.56	.02	20.98	.02
19	69.50	.27	56.43	.17	47.49	.13	41.00	.10	36.07	.07	32.20	.06	29.08	.05	26.51	.04	24.36	.03	22.53	.03	20.95	.03
20	69.23	.27	56.25	.18	47.37	.12	40.90	.10	36.00	.07	32.14	.06	29.03	.05	26.47	.04	24.32	.04	22.50	.03	20.93	.02
21	68.97	.26	56.07	.18	47.24	.13	40.82	.08	35.93	.07	32.09	.05	28.99	.04	26.43	.04	24.29	.03	22.47	.03	20.91	.02
22	68.70	.27	55.90	.17	47.12	.12	40.72	.10	35.86	.07	32.03	.06	28.94	.05	26.39	.04	24.26	.03	22.44	.03	20.88	.03
23	68.44	.26	55.73	.17	47.00	.12	40.63	.09	35.79	.07	31.97	.06	28.89	.05	26.35	.04	24.23	.03	22.42	.02	20.86	.02
24	68.18	.26	55.56	.17	46.88	.12	40.54	.09	35.71	.08	31.91	.06	28.85	.04	26.32	.03	24.19	.04	22.39	.03	20.83	.03
25	67.92	.26	55.38	.18	46.75	.13	40.45	.09	35.64	.07	31.86	.05	28.80	.05	26.28	.04	24.16	.03	22.36	.03	20.81	.02
26	67.67	.25	55.21	.17	46.63	.12	40.36	.09	35.57	.07	31.80	.06	28.75	.05	26.24	.04	24.13	.03	22.33	.03	20.79	.02
27	67.42	.25	55.05	.16	46.51	.12	40.27	.09	35.50	.07	31.75	.05	28.71	.04	26.20	.04	24.10	.03	22.30	.03	20.76	.03
28	67.16	.26	54.88	.17	46.39	.12	40.18	.09	35.43	.07	31.69	.06	28.66	.05	26.16	.04	24.06	.04	22.28	.02	20.74	.02
29	66.91	.25	54.71	.17	46.27	.12	40.09	.09	35.36	.07	31.63	.06	28.62	.04	26.12	.04	24.03	.03	22.25	.03	20.71	.03
30	66.67	.24	54.55	.16	46.15	.12	40.00	.09	35.29	.07	31.58	.05	28.57	.05	26.09	.03	24.00	.03	22.22	.03	20.69	.02
31	66.42	.25	54.38	.17	46.04	.11	39.91	.09	35.23	.06	31.52	.06	28.53	.04	26.05	.04	23.97	.03	22.19	.03	20.67	.02
32	66.18	.24	54.22	.16	45.92	.12	39.82	.09	35.16	.07	31.47	.05	28.48	.05	26.01	.04	23.94	.03	22.17	.02	20.64	.03
33	65.93	.25	54.05	.17	45.80	.12	39.74	.08	35.09	.07	31.41	.06	28.44	.04	25.97	.04	23.90	.04	22.14	.03	20.62	.02
34	65.69	.24	53.89	.16	45.69	.11	39.65	.09	35.02	.07	31.36	.05	28.39	.05	25.94	.03	23.87	.03	22.11	.03	20.59	.03
35	65.45	.24	53.73	.16	45.57	.12	39.56	.09	34.95	.07	31.30	.06	28.35	.04	25.90	.04	23.84	.03	22.09	.02	20.57	.02
36	65.22	.23	53.57	.16	45.45	.12	39.47	.09	34.88	.07	31.25	.05	28.30	.05	25.86	.04	23.81	.03	22.06	.03	20.55	.02
37	64.98	.24	53.41	.16	45.34	.11	39.39	.08	34.82	.06	31.20	.05	28.26	.04	25.82	.04	23.78	.03	22.03	.03	20.52	.03
38	64.75	.23	53.25	.16	45.23	.11	39.30	.09	34.75	.07	31.14	.06	28.21	.05	25.79	.03	23.75	.03	22.00	.03	20.50	.02
39	64.52	.23	53.10	.15	45.11	.12	39.22	.08	34.68	.07	31.09	.05	28.17	.04	25.75	.04	23.72	.03	21.98	.02	20.48	.02
40	64.29	.23	52.94	.16	45.00	.11	39.13	.09	34.62	.06	31.03	.06	28.13	.04	25.71	.04	23.68	.04	21.95	.03	20.45	.03
41	64.06	.23	52.79	.15	44.89	.11	39.05	.08	34.55	.07	30.98	.05	28.08	.05	25.68	.03	23.65	.03	21.92	.03	20.43	.02
42	63.83	.23	52.63	.16	44.78	.11	38.96	.09	34.48	.07	30.93	.05	28.04	.04	25.64	.04	23.62	.03	21.90	.02	20.41	.02
43	63.60	.23	52.48	.15	44.67	.11	38.88	.08	34.42	.06	30.87	.06	27.99	.05	25.60	.04	23.59	.03	21.87	.03	20.39	.02
44	63.38	.22	52.33	.15	44.55	.12	38.79	.09	34.35	.07	30.82	.05	27.95	.04	25.57	.03	23.56	.03	21.84	.03	20.36	.03
45	63.16	.22	52.17	.16	44.44	.11	38.71	.08	34.29	.06	30.77	.05	27.91	.04	25.53	.04	23.53	.03	21.82	.02	20.34	.02
46	62.94	.22	52.02	.15	44.33	.11	38.63	.08	34.22	.07	30.72	.05	27.86	.05	25.50	.03	23.50	.03	21.79	.03	20.32	.02
47	62.72	.22	51.87	.15	44.23	.10	38.54	.09	34.16	.06	30.66	.06	27.82	.04	25.46	.04	23.47	.03	21.77	.02	20.29	.03
48	62.50	.22	51.72	.15	44.12	.11	38.46	.08	34.09	.07	30.61	.05	27.78	.04	25.42	.04	23.44	.03	21.74	.03	20.27	.02
49	62.28	.22	51.58	.14	44.01	.11	38.38	.08	34.03	.06	30.56	.05	27.73	.05	25.39	.03	23.41	.03	21.71	.03	20.25	.02
50	62.07	.21	51.43	.15	43.90	.11	38.30	.08	33.96	.07	30.51	.05	27.69	.04	25.35	.04	23.38	.03	21.69	.02	20.22	.03
51	61.86	.21	51.28	.15	43.80	.10	38.22	.08	33.90	.06	30.46	.05	27.65	.04	25.32	.03	23.35	.03	21.66	.03	20.20	.02
52	61.64	.22	51.14	.14	43.69	.11	38.14	.08	33.83	.07	30.41	.05	27.61	.04	25.28	.04	23.32	.03	21.63	.03	20.18	.02
53	61.43	.21	50.99	.15	43.58	.11	38.05	.09	33.77	.06	30.35	.06	27.57	.04	25.25	.03	23.29	.03	21.61	.02	20.16	.02
54	61.22	.21	50.85	.14	43.48	.10	37.97	.08	33.71	.06	30.30	.05	27.52	.05	25.21	.04	23.26	.03	21.58	.03	20.13	.03
55	61.02	.20	50.70	.15	43.37	.11	37.89	.08	33.64	.07	30.25	.05	27.48	.04	25.17	.04	23.23	.03	21.56	.02	20.11	.02
56	60.81	.21	50.56	.14	43.27	.10	37.82	.07	33.58	.06	30.20	.05	27.44	.04	25.14	.03	23.20	.03	21.53	.03	20.09	.02
57	60.61	.20	50.42	.14	43.17	.10	37.74	.08	33.52	.06	30.15	.05	27.40	.04	25.10	.04	23.17	.03	21.51	.02	20.07	.02
58	60.40	.21	50.28	.14	43.06	.11	37.66	.08	33.46	.06	30.10	.05	27.36	.04	25.07	.03	23.14	.03	21.48	.03	20.04	.03
59	60.20	.20	50.14	.14	42.96	.10	37.58	.08	33.40	.06	30.05	.05	27.31	.05	25.03	.04	23.11	.03	21.45	.03	20.02	.02
60	60.00	.20	50.00	.14	42.86	.10	37.50	.08	33.33	.07	30.00	.05	27.27	.04	25.00	.03	23.08	.03	21.43	.02	20.00	.02

A similar table for a five mile course. The columns headed Diff. are used for interpolating results for fractions of a second

(*Continued from page 72*)

each equipped with a stop watch and a split second watch. The watches must be wound and set at zero ready for the start as each field of boats is called out onto the course for a start. At the instant of the start, which is signalled by the starters flag, or which may be taken from the official chronometer if a starting clock is used, the timers start their watches. In case the start is to be of the horse race variety the watches are started as the bow of the leading boat, which should be the pole boat, crosses the starting line. Unless the watches are started each time the field scores across the line for a start there is a chance of the boats getting away without the watches being started. Better start the watches for a dozen false starts and reset them than to take any chance on missing the start. After the start of the race the stop watch is set aside, preferably in a watch pocket, and the split second watch taken up for reading lap times on all

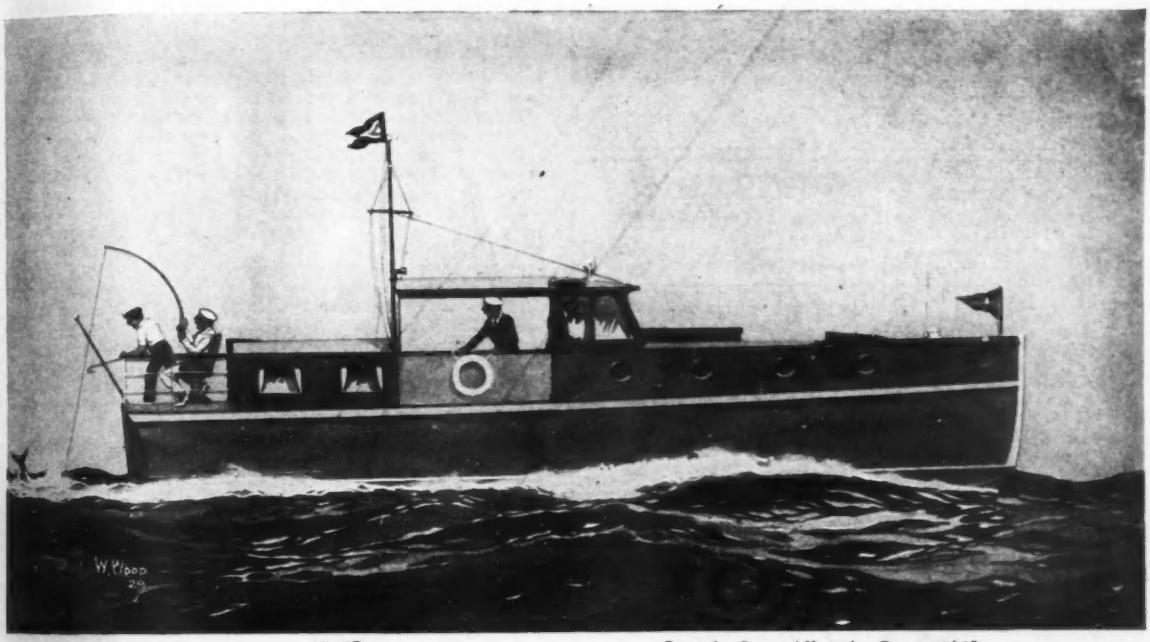
(*Continued on page 128*)

No Fire Hazard!

You can safely take your family in the

Humphreys 38 Pilot

The Newest Humphreys Diesel Cruiser



The 38 PILOT

Length Over All 38′ — Beam 10′6″ — Draft 3′—Power Plant One 6 cyl. 60 h.p. Diesel Engine. Cruising Radius 1000 miles. Cruising Speed 13-14 miles per hour. Accommodations for 6, plus paid hand. Equipment complete.

SO insistent was the demand of yachtsmen that we add a 38-footer to the Humphreys line of Diesel Cruisers, we just couldn't escape the Pilot. So here she is! Right now she's building for a goodly number of owners.

She possesses the ample accommodations of a much larger boat and the snug convenience of her size. She sleeps six, plus crew of one. Her cruising radius is 1,000 miles! The fire hazard is no longer present. It costs next to nothing to operate her. She's Diesel!

At the Motor Boat Show the public's approval of Diesel Power was thoroughly demonstrated. Since then tests made of Diesel suitability for aeroplanes, because of fire safety, added flying distance, etc., are directing public attention most forcibly of late to this type of power. The yacht owner will do well to add Diesel advantages to his cruising, and the Humphreys Squadron has already proved how thoroughly Diesel Engines can be adapted to the small pleasure yacht.

A visit to our New York Office or a quick trip to our yards at Keyport, New Jersey, will give you the opportunity to inspect Diesel and Humphreys advantages, for we are now building a dozen or more such cruisers.

Write for complete specifications and information on the new Humphreys Diesel 38-foot Pilot.

FREDERIC P. HUMPHREYS INC.

230 Park Avenue — **New York City**

HUMPHREYS

Cable Address: HUMPFRED

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If you have a boat in Florida waters that you want sold, insured, surveyed, or cared for in any way; or if you wish to purchase one; I can serve you. Over fifteen years' experience as a Naval Architect, Shipbuilder and Inspector. My list of all classes of boats for sale and charter is very extensive.
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Sail and power yachts. Houseboats and commercial vessels. Surveys made in all Gulf Ports.
I have a large number of yachts of every description for sale, and some for charter. Stability and free board calculations. Cable address: "Walkeen."

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11 EAST 44th STREET NEW YORK

"Your Most Logical Sales Outlet"

REACHING the man who is already a boat owner or in line to be one has become a simplified task —through use of advertising space in the Detroit Yacht Club monthly magazine.

Space Rates on Application

The Main Sheet
W. D. Edenburn—Editor
Business Office
5-218 General Motors Bldg., Detroit

Princess Louise Inlet

(Continued from page 29)

has a queer geographical structure. It's round, or very nearly round, and is pierced on the Southern end by East Sound arm which comes within a mile or so of splitting the Island. Captain Shain charted the course for Rosario, on an arm of East Sound. Mount Constitution, it's picturesque peak radiating over 2,000 feet above the emerald trees of Orcas Island, broke into view. A majestic sight, and a beacon for mariners weaving their way in the intricate mazes of the San Juan archipelago.

Rosario? Heard of it? No? Well, if you haven't, visit this idealistic little settlement some day and you'll leave with a new insight on modern day dreams of peace that seems like amazing fiction. Robert Moran, ex-Seattle boatbuilder, yachtsman, and engineer has a dream palace there. He is known nationally, perhaps, for building the battleship Nebraska back in the balmy days of 1907 at the old plant of the Moran Shipbuilding Company, Seattle, a graphic reminiscence of the days that used to be.

Shain and his cronies made their boat fast to Moran's dock and looked up the gentleman. He extends a welcome hand to visitors; in fact, has open house one day a week. Mr. Moran showed them over his entire estate and through his magnificent castle. It's a trip that's worth while.

Mr. Moran has donated over two thousand acres of beautiful timber land on Orcas Island to the State of Washington. It's known as Moran's State Park and the only way one can appreciate its magnificent grandeur is to see it. Without a doubt the park is the most picturesque in the country. The donor delivered a speech during the past summer before the convention of park men at San Francisco on how to develop and maintain a state park.

A figurehead of the famous clipper ship America marks the entrance to his park. Fountains, pools, flowers, deer, orchards—what's the use? Shakespeare couldn't describe that paradise to you and do it justice. Ah, his home! Teak from Borneo, hardwood from Africa, glass from Belgium, stone from Alaska, fitted together by master craftsmanship and designed as only an engineer can design a structure.

There are bowling alleys, swimming pools, billard tables, pictures of ships, designs, a beautiful model of the battleship Nebraska, and many other interesting things in Moran's home. His organ renders harmony that's hard to duplicate. It's a wind-pipe affair and above the organ are glass colored views of Antwerp and other famous European harbors.

Such a library! Who is your favorite? There you'll find Coleridge's Ancient Mariner stacked with Virgil's Aeneid.

Bend your eyesight to the roadsted. There she lies! Some ship that auxiliary yacht San Wan. Pretty name, isn't it? Robert Moran designed and built her, there at Rosario about thirteen years ago. She was planned for a world cruise, but the world war intervened, and Mr. Moran was so busy helping Uncle Sam that the cruise never materialized. She's some ship. Without a shadow of doubt, San Wan is the finest and largest auxiliary yacht that has ever been constructed on an island the size of Orcas.

The tide, the wind, and the sea wait for no sailor, so reluctantly perhaps, Trimmer's crew cast away from that dream land. With one twist the Winton spoke and Gene backed Trimmer out of the slip. The island boat, Friday Harbor II, came puffing in a minute later, her semi-diesels rumbling like the distant thumping of a drum.

Waving a parting farewell to the grand old shipbuilder, sailed three edged around Rosario Point and chugged silently, hugging down East Sound arm. Mount Constitution loomed like a verdant cone of evergreen before their eyes. Fog near the summit obscured the sun's rays as they tried to pierce the void.

Ten minutes later they picked up Twin Rocks on their starboard and a few minutes later the busy little seaport of Olga hove in view a few points off their port bow. Skipper Shain knows those San Juan bays and inlets with astounding accuracy. He rarely consults a chart when the weather is clear.

"Just keep her dead on for Shaw Island and we will pick up Harney Channel presently," Captain Shain told Gene.

True to his predictions they were soon merrily cruising over Harney Channel and presently beheld San Juan Island in the offing. It was an interesting run to the lime town of Roche Harbor, hopping off place for yachts going to Canada. A cruising permit was soon obtained from the customs and they were away, rarin' to go.

Under full stem for Sidney, Vancouver Island. Hooray! Shain only smiled when quizzed as to just why he included Sidney on the log.

"Beautiful fishing around there," he seemed to remember something pleasant as he spoke about Sidney.

"How's the beer and other bottled goods?" we ventured. He grinned again, but the action photo, taken on the rear deck of

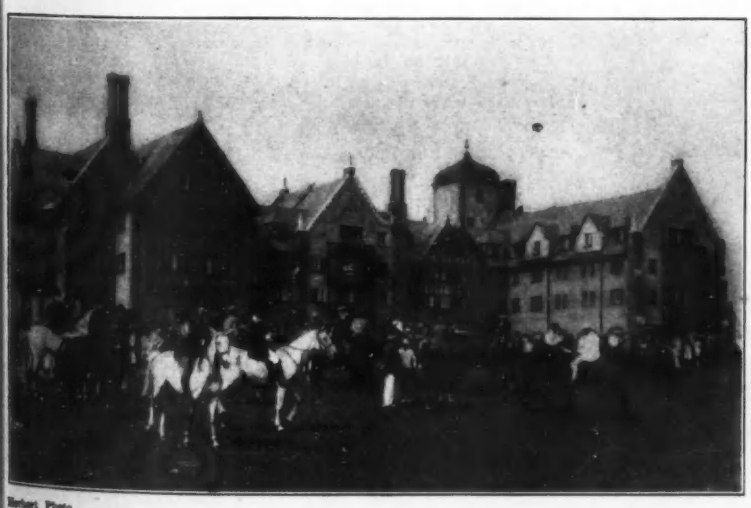
(Continued on page 78)

RENDEZVOUS FOR YACHTSMEN AND OTHER FASHIONABLE FOLK

Society's smart summer colony will soon gather at Montauk Beach, on Long Island's slender tip, overlooking the Atlantic Ocean and Block Island Sound. This uncrowded, unspoiled and unhurried playground for the elite offers every recreation facility for those who demand the fine things of life. . . . . Golf on splendid 18-ho'e courses. Thirty tireless miles of bridle paths. Yachting on Montauk Lake, which is two miles long, or out on the Sound. Swimming in the large pool, and surf bathing from wide sandy beaches. Fishing as found at Catalina and off the Florida Coast. Polo on regulation fields. Tennis on fast courts.

Pack your bag and come out to Montauk Beach. Bring your clubs, your tackle and your bathing suit. Bring your family and you'll stay if you like to play.

Write for Illustrated Booklet



Herbert Photo

No resort hotel in the world is more beautiful than Montauk Manor, the center of social activities at Montauk Beach. 200 exquisitely furnished, light, airy rooms with baths. Excellent cuisine. Because of the great popularity of Montauk Manor you should make reservations now for the summer season.

MONTAUK BEACH

MONTAUK BEACH DEVELOPMENT CORP., MONTAUK, N.Y. . . . . ON LONG ISLAND'S SLENDER TIP

Colorful murals by N. C. Wyeth and exquisite detail in its period decorations contribute to the rare beauty of the Hendrik Hudson Dining Room at The Roosevelt.

At this vivid season when the attractions of New York take on a heightened interest, The Roosevelt beckons to those of cultivated taste . . . A hotel alive to the pleasant usages of city life with a spirit, an appeal, a gracious air, quite distinctly its own.

◇ ◇ ◇

Connected by private passage with Grand Central and the subways . . . Complete Travel and Steamship Bureau . . . "Teddy Bear Cave," a supervised playroom for children of guests . . . Special garage facilities.

BEN BERNIE *and his* ORCHESTRA *in the* GRILL

THE ROOSEVELT

MADISON AVENUE at 45th Street NEW YORK

EDWARD CLINTON FOGG—*Managing Director*

UNITED HOTELS

Princess Louise Inlet

(*Continued from page 76*)

Trimmer speaks louder than bubbling foam. Boy, for an opener and a syphon!

Battleship Island abeam! Funny name, isn't it? There are many funny things up there in that paradise of the San Juan Islands. Those early dukes, earls and admirals from back in the old country left some good English, Castilian, and Latin names up in that neck of the country that have a kick in every word. The animal tribes are also well represented. There's Buck Bay, Deer Harbor, Fawn Inlet. Even Robinson Crusoe's boy friend is in the limelight. He may not have founded Friday Harbor with a landfall but it's on the chart all right. Incidentally it's the biggest town of the archipelago and reposes sedately on San Juan Island.

Our Spanish friends were liberal. They stamped the country with a few Castilian names. A few still remain; Lopez Island, Fidalgo Island and the Straits of Juan de Fuca will serve as examples.

Thus it came to pass that on the second evening of the Shain expedition, three good salts moored their craft to the quay in Sidney Harbor, Vancouver Island, and peacefully ambled up the main street. Ah, those Canadians—courteous, queer, but very interesting. Make good beer, better whiskey, and sell both with a smile.

An Indian or two nonchalantly eased into the saloon where the Seattle men were making merry and several Englishmen also sauntered into the grog house. One bottle followed another and then a three course dinner. Rather an international banquet, with Skipper M. G. Shain, intrepid racer, boatbuilder, and yachtsman of Seattle town the host. They were perfectly sober, the bartenders, and the international banquet ended with peace and good will preferred forever and ever. Cruisers will replace battleships; sailboats will be doubles for submarines; war's over and joy once again reigns on the cruising lanes of the seven seas.

"Hootchemos, Delait! Hootchemos, Delait! Hi-yu— Hi-yu," the First American was all excited as he talked and drew a roll from his wampum belt that would put to shame some of these small town banks.

The waiter apparently knew Battleship Island Joe for he interpreted his Indian jargon.

"He says the liquor was good and wants heaps of it," the English attendant, smiling as he watched the soused Indian, said to Shain.

"Habitually, he gets on a bender about once every month, and chances are that he won't sober up until about next Sunday when he has to take his squaw and papooses to the little church on the brow of yonder hill," the waiter continued.

With a bottle or two stowed in their hip for emergencies, Trimmer's crew wished their new found friends adios and stole back to the waterfront. Trimmer was riding restlessly at her painter and seemed to say: "Let's get on the rolling blue once again."

Eight bells and four p. m. they slipped away from the picturesque port of Sidney just as the Anacortes-Sidney ferry came rumbling in from the U. S. port.

A light wind had set in from the west and odd cloud formations shadowed the sky. The sea was gray and white with long breaking waves. Gradually the wind increased in velocity as they squared out of the harbor and set her dead on for Coal Island.

"Low glass, terribly low glass," Gene remarked as he glanced at the barometer.

"The storm signal is up," Larry retorted, gazing toward the Sidney station.

A well defined range of cumuli hovered a few degrees above the horizon and a massive, dark-gray rain cloud formed above it. Now and then sun-beams poured through the narrow openings and painted the world a ripe tone of yellow, lemon, and gold. It's reflections on the breaking seas made remarkable photography.

Twilight stole on! The staunch ship held her own. A short twilight slowly merged with night and glowing patches of crimson fused with blue, were visible behind the green drapery of trees on Vancouver Island. Night wore on! With every lurch of the ship the wind blew stronger. It moaned and sang as it came hissing in from the west.

The sky was now dark. Shain steered by compass. Weird and grotesque were the rays from the binnacle light. Strange shadows pierced the pilothouse. Great banks of boiling water smashed over the lean bow with a wild, uncontrolled fury and charged onto the staunch decks with hungry passion. Trimmer lurched and plunged into the trough of mountainous seas. Thunder and lighting shook the Heavens. Vivid, brilliant pyrotechnics lighted the skies like day. The roar of the sea was deafening. Still the motor hummed and three tested sailors took her out. Shain waxed poetical and yelled to his companions:

(*Continued on page 80*)

Advertising index will be found on 3rd last page

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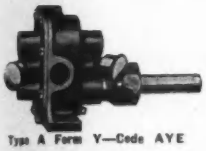

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Your Motor Deserves a Good Circulating Pump

YOU can't expect your motor to give good performance unless you make sure it is equipped with an efficient, dependable circulating pump. For fifty years Oberdorfer Bronze Gear Pumps have set a high standard of reliability. Salt water has no effect on the non-corrosive bronze used in their construction.

Carried in stock by all important marine supply dealers in all standard types, forms and sizes.

Oberdorfer Pumps make your boat a better boat. The Oberdorfer Improved Model "B" and "Master" Automatic Electric Bilge Pumps are available in 6 and 12 volt units. The Oberdorfer Hand Bilge Pump fills a long felt want for a speedy and efficient hand pump. Oberdorfer Motor Driven Outfits with both gear and centrifugal pumps will perform many useful tasks aboard your boat.

Write for Bulletins on complete line of Oberdorfer Pumps.

M. L. OBERDORFER BRASS CO.
2200 Thompson Road, Syracuse, N. Y.

Patents Applied For

Improved Model "B" Automatic Electric Bilge Pump

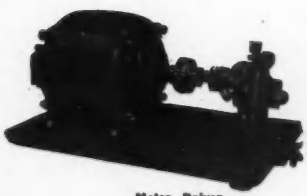
OBERDORFER
BACK FIRE TRAP

A motor backfire means DANGER unless your motor is equipped with an Oberdorfer Back Fire Trap. This protective device has been submitted to Underwriters Laboratories; has successfully passed their test requirements and is manufactured under their re-examination service.

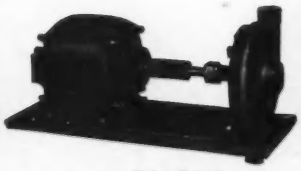
Patents Applied For

THE MASTER
Automatic Bilge Pump

HAND BILGE PUMP



Motor Driven
GEAR TYPE PUMP



Motor Driven
CENTRIFUGAL PUMP

Oberdorfer Pumps

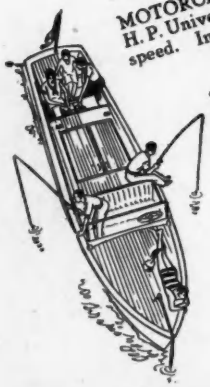
FANCY FREE... TO EVERY POINT OF THE COMPASS

Out where the salt billows roll —in a "LITTLE LINER" of your own—

Out in deep water with the big ships and big fishes, the Dyer MOTORCRAFT rides around swell or chop with perfect ease and perfect safety. Her round bilge and patent construction make her absolutely safe and free from weaving or twisting in any kind of weather, even if driven at maximum speed of thirty-five miles per hour—nor will she feel any ill effects from a season of rough water experience.

Deep sea sailing men designed MOTORCRAFT and have given this splendid runabout the speed of a racer and the buoyant seaworthiness of a lifeboat. She will ride the heaviest seas without nosing under and cut down from full to trolling speed without losing her buoyancy.

MOTORCRAFT, powered by an Eight cylinder 110 H.P. Universal, will turn in a forty foot radius at top speed. Imagine the thrill of this experience without danger or fear to those on board.



Ask any experienced yachtsman, naval architect or boat builder about MOTORCRAFT. Descriptive catalog and demonstration gladly given upon request.

Our DEALER franchise will be interesting to those who know boats and can give service.

DYER MOTORCRAFT CORP.
East Greenwich, R. I.

HAPPINESS

MOTORCRAFT

The World's Best Built Boat.

Princess Louise Inlet

(*Continued from page 78*)

"*Forsan Et Hapec Olim Meminisse Iuvabit*," which translated from Virgil's Aeneid means, "The day may dawn when this plight shall be sweet to remember."

"And now," said Skipper Shain, "As I tell you about that incident after it's all over, it was honestly the most thrilling and interesting situation I've ever been in. I knew that if the powerplant kept chugging we had a fighting chance to ride out that miniature hurricane."

"For four long hours we played with that fighting chance. Over gigantic seas we picked our way, wave by wave, and finally dropped anchorage in the lee of Coal Island, with a terribly battered, bruised and insulted boat but with a crew that still had a stiff upper lip. It was lots of fun—talking about that stretch of boiling blue after we had negotiated it."

"We went topside, put out all the ground tackle we had and turned to, hoping that morning would find the wind down to at least one hundred miles per hour. I'll bet that Charon, the boatman on the river Styx never has had a stormier trip going to Hades."

Morning! Ah, to go up on deck and breathe in a morning like they found is worth going through a dozen storms for. And that breakfast. Yes, that breakfast! Boys, ladies, men, gentlemen, if only half of America's young wives could concoct food like Larry can, there would be less one way tickets to Reno. Remember that, it's based on a fathom of logic. His coffee would bring more for a quart than aged in the wood moon would bring for a gallon. His flapjacks are worth the price; worth any price. Can he fry eggs; can he turn out crisp bacon; can he turn out brown toast? Gosh boy, his two shellbacks will go down the line for him and that ought to be ample verification.

When you're anchored in the lee of a beautiful island and the sea is calm and fish are jumping everywhere, what would you do? Wouldn't you just get out the dinghy, crank up your outboard, and gently say, "to 'ell with business and the rest of the world?" Wouldn't you? Well, that's just what Larry, Gene, and Skipper did. Boy they had fun! There's something about fishing. Ever since you played hookey from that little red schoolhouse and fished along the winding stream, that call has been the same; insistently, persistently it calls. As the years roll onward the call is stronger, each fishing trip means more than those before.

Gene registered first! A gamy, scrapping salmon trout got hold of his McMahon spoon and started away with it. Whoa! Not so fast! Gene played with the shiny gladiator and eventually landed him with a dip net. Among other things, Larry hooked a six pound stick of high powered dynamite, personified in a salmon trout. What a battle that specimen of the Silver Horde put up. Ten minutes of fishing fun and Mr. Salmon Trout kicked his last on a dinghy thwart.

Three happy men made things shipshape, hauled the hooks, and were away over a glassy sea. Everything hanging high! All hands cheerful; a good boat and reliable motor. Plenty of stores in the galley and a quart of Ye Olde Highland liquor in the bilgedaire. (That's a new ice box, a special patent on Trimmer. It's a tin box, located aft, 'neath the floor planking, and is used especially for a medicine cabinet. Soda Pop, ginger ale, and a bottle or two of other medicines is kept there strictly for sick people).

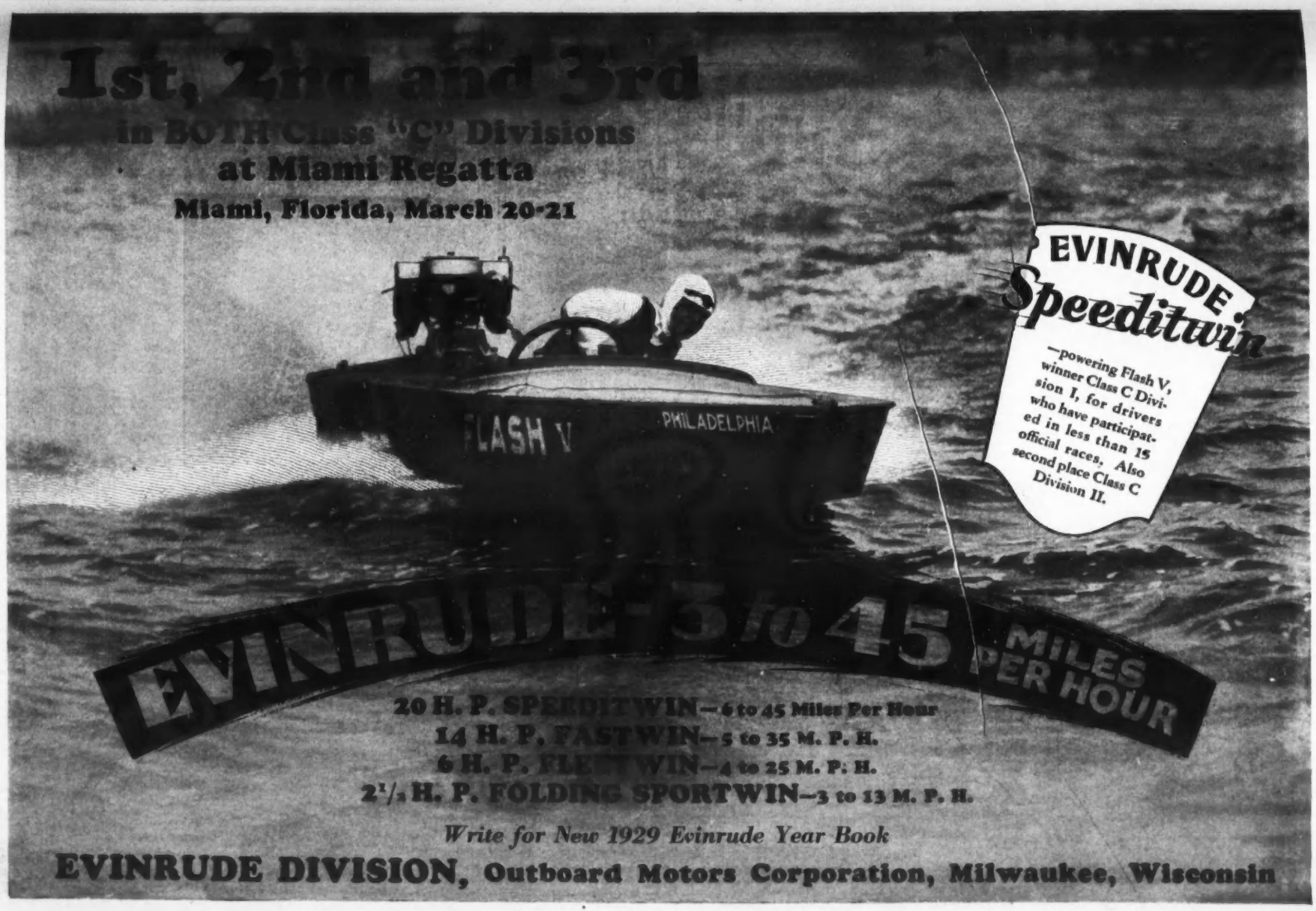
There's something new—spicy—adventurous—with a natural sea tang—not the dry, stagnant vacuum of the every day life; there's a kick in every wave out on the rolling blue. Slap your chest, breathe deep the pure sea air, and say "to 'ell" with the rest of the puzzling cosmos. Ah, your nerves relax, your brain clears, your appetite increases, you feel like a man. An honest to Gosh, red-blooded, dried in salt mariner. Yes, a genuine sailor, who has sailed the ocean blue since clippers were in vogue along the pathways of shipping.

"So long as there are ships, so long as there is water, so long as the Maker of the World says it shall be, then, so long, no doubt, I'll take an annual pilgrimage over the blue water," said Captain Shain as he watched several of his employees assembling his latest creation.

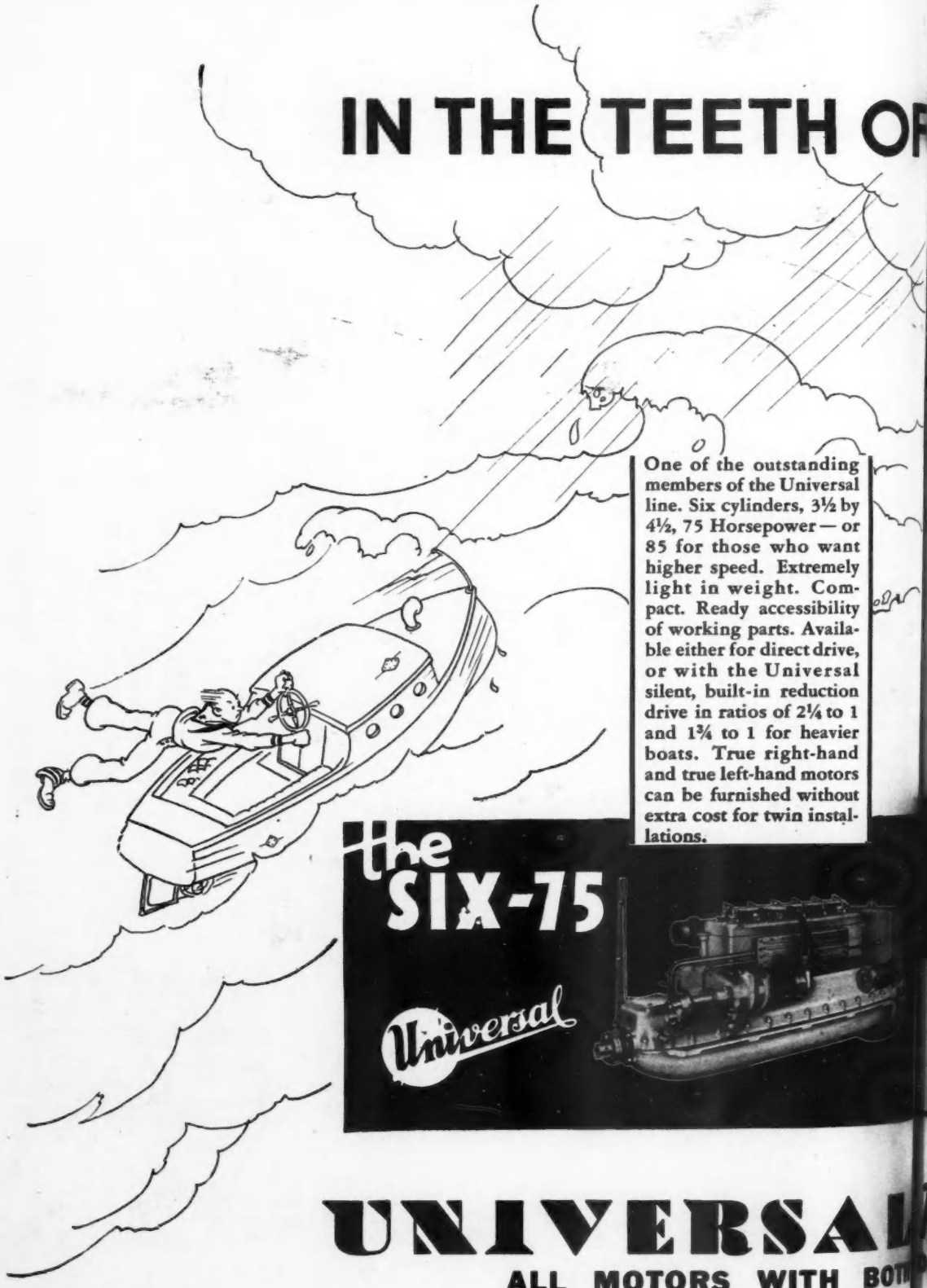
PROTECTION FOR SPARK PLUGS

Very frequently unprotected spark plugs on engines exposed to the weather such as outboard and inboard installations in open boats, are the source of considerable annoyance when wet. To overcome this difficulty, the Rajay Company of Bloomfield, N. J., has perfected a porcelain hood which may be fitted over any type of plug. It is applied in such a manner that the wire may be removed from the terminal without disturbing the hood and it may, if desired, be used in conjunction with a rubber nipple which fits over hood, terminal and wire in such a manner as to give complete weather proofing protection.

Advertising index will be found on 3rd last page


1st, 2nd and 3rd
in BOTH Class "C" Divisions
at Miami Regatta
Miami, Florida, March 20-21
FLASH V
PHILADELPHIA
EVINRUDE Speeditwin
—powering Flash V, winner Class C Division I, for drivers who have participated in less than 15 official races. Also second place Class C Division II.
EVINRUDE 3 to 45 MILES PER HOUR
20 H. P. SPEEDITWIN—6 to 45 Miles Per Hour
14 H. P. FASTWIN—5 to 35 M. P. H.
6 H. P. FLEETWIN—4 to 25 M. P. H.
2½ H. P. FOLDING SPORTWIN—3 to 13 M. P. H.
Write for New 1929 Evinrude Year Book
EVINRUDE DIVISION, Outboard Motors Corporation, Milwaukee, Wisconsin

IN THE TEETH OF A



One of the outstanding members of the Universal line. Six cylinders, 3½ by 4½, 75 Horsepower — or 85 for those who want higher speed. Extremely light in weight. Compact. Ready accessibility of working parts. Available either for direct drive, or with the Universal silent, built-in reduction drive in ratios of 2¼ to 1 and 1¾ to 1 for heavier boats. True right-hand and true left-hand motors can be furnished without extra cost for twin installations.

the SIX-75

Universal

UNIVERSAL

ALL MOTORS WITH BOTH

Advertising index will be found on 3rd last page

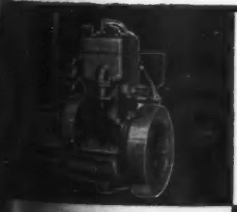
A GALE OF WIND!

Universals prove their mettle . . . . .

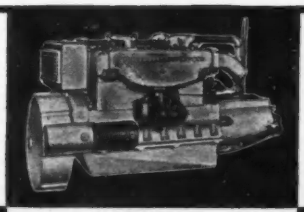
Lee-shore dependability is built into every Universal Motor—because Universals are marine motors designed from stem to stern, from oil base to spark plugs to do a marine engine's job. In the chemical content of castings, in bearing clearances for operating at marine engine temperatures, in perfection of balance, in rightness of design, every Universal has been endowed with the utmost reliability, the last word in assurance against any of the ills of a less able motor.

UNIVERSAL MOTOR COMPANY
Dept. MBG-5 Oshkosh, Wis.

NOT CONNECTED WITH ANY OTHER FIRM USING THE NAME "UNIVERSAL"

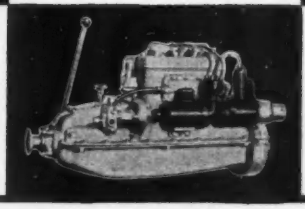


UNIVERSAL FLEXIFOUR 10–15 H. P.

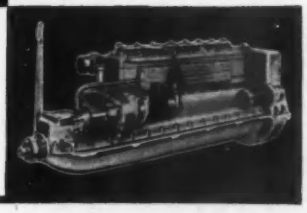


UNIVERSAL S-110 EIGHT CYLINDERS 110 H. P.

UNIVERSAL SINGLE 8 H. P.

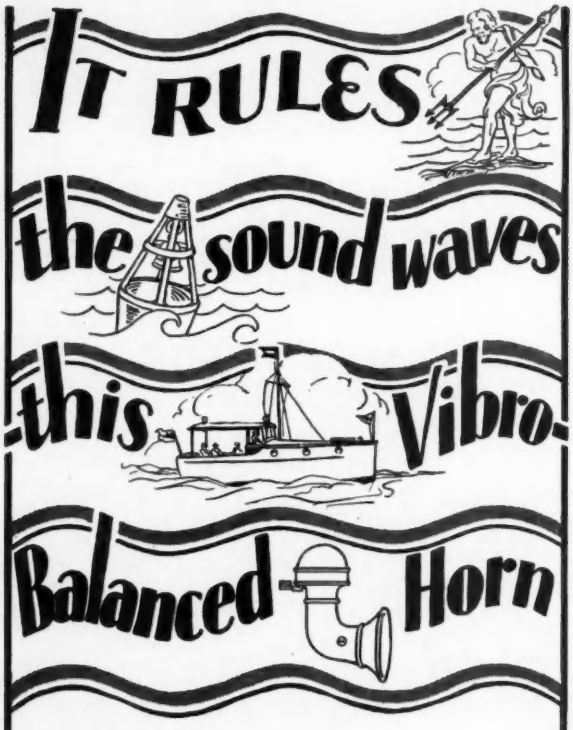


UNIVERSAL SUPER-FOUR GLR 50 H. P.—GLR 45 H. P. GLR 35 H. P.



marine MOTORS

BOTH DIRECT AND REDUCTION DRIVE



ITS fame has spread from land to sea. On land, motorists have liked this horn so well, that they transfer it from car to car. Imagine that! Many of these motorists who have gone to sea, wanted this horn for their boats . . .

And so we created a special Marine Model of the Robert Bosch Vibro-Balanced Horn.

Sailor, what a horn this is! It pierces densest fogs. It thrives even on salt water or in salt air . . . thanks to its black enamel or polished brass finish. It is windproof, waterproof, weatherproof. Lubrication is unnecessary. Adjustment is unnecessary. Sailor, what a horn!

It is the only horn that embodies the principle of Vibro-Balance. It is the only horn that you'll feel you never want to part with. Perch it up on deck and you'll be proud as a peacock of your Robert Bosch Vibro-Balanced Horn . . . because the horn itself is pretty as a peacock.

ROBERT BOSCH MAGNETO CO., INC.
3603C Queens Blvd., Long Island City, N. Y.

ROBERT BOSCH
Vibro-Balanced Horn

The Robert Bosch Horn comes from a fine family—the company that makes the famous Robert Bosch Magneto, Generator and Spark Plug. Every Original-Bosch Horn is marked with the full name Robert Bosch and this trademark:

The Original Bosch ROBERT BOSCH PRODUCTS

Ripalong—A Day Cruiser

(*Continued from page 53*)

white for best appearance.

There is a flush hatch in the short after deck which can be lined with zinc or copper for use as a fish box, or for locker space depending upon personal preference. I should by all means use the two towing bitts as shown because these are very handy at times.

There is a wide after seat with lazy back and set about 15 inches above the floor so that when cushions are laid it will not be uncomfortably high. An 18 inch diameter galvanized iron deck plate gives access to the large space below the cockpit floor. This is an ideal place for spare rope, oil cans and life preservers. The thwart across the cockpit is the ideal place to sit while the boat is under way. Five persons can rest here in comfort. Of course it is necessary to step over this thwart when going into the cabin, but as it is low and narrow it is really very little in the way.

Access to the tail end of the motor and reverse gear is accomplished by the flush hatch shown. The reverse gear lever simply protrudes through this and so simplifies the control of the boat. Spark and throttle with tachometer are on the bulkhead. The wheel is of the old fashioned variety, and really is most satisfactory for this particular boat. The whole cockpit is most practical and seamanlike. Two small chairs can be used if desired, the fold up kind are suitable.

The fore deck is wide and flat having an 18-inch screw deck plate forward and an oak bit. A ¾ by ¾ inch mahogany rail is fitted forward and runs aft for a length of about 7 feet. The deck is canvas covered which after all is about as satisfactory as any thing can be. There is a sliding hatch 2 feet wide and 2 feet 6 inches long with two drop doors in the bulkhead opening. Slide and drops are made from mahogany.

If Ripalong is painted white with mahogany half round mouldings at the edge of the raised deck and cockpit, and for the full leigth of the sheer she will look very smart. Then the bottom should be green or red copper paint. She would look well in grey paint, but this is hard to keep clean.

The cabin is not large, but there is enough room for two to sleep on very decent sized built-in bunks. By installing a small pump closet under the forward ends of the bunks, all to be hidden by cushions and a curtain, the sanitary arrangements will be taken care of.

Despite the low freeboard and flat cabin top we have over 4 feet 2 inches headroom in the cabin and this is ample for this type boat. You know there is no way in which to build a shoal draft boat and one having at the same time moderate freeboard so as to have full headroom. Personally I feel that most of our cruising motor boats are too much out of the water, and far too little in, to be safe in bad weather. After all we stand up very little in small craft and it seems a pity to spoil the looks and the ability to keep going in bad weather for the sake of headroom.

Ripalong was designed for a day cruiser so do not change her around into a cruiser with full headroom. She will be a failure thus. You see her construction is light and I have allowed just so many pounds for displacement and no more. If she is heavier she will not be speedy, and as a slow boat she will be very little good.

The motor will be in the cabin but if you pick one out that is as free from mess when it is running as the Scripps was in the original Rip II there will be little need to box it in. However, a box would serve as a table, I suppose, and might, as such, be handy. I rather fancy to have a motor out where it can be seen and be the easier to take care of. There is always danger with a motor shut up in a separate compartment or in a box. You see, there is less chance for gas to collect when the whole arrangement is open. Also motors enclosed are prone to sweat, which is bad for the valves and ignition as well.

Rather a good place for stowage is in the space ahead of the forward low bulkhead. Here will be found room for anchor cable and other pieces of gear which must be handy to grab.

I am afraid the plan of the cabin shown here does not give an idea of the room available for cabin accommodations. There is quite a space for the stove and an ice box under it. One of those Alco stoves as made by Fred Waller would be about as good as any. The Alco burns solidified alcohol and is both perfectly safe and economical in operation; besides fuel can be obtained for it at any drug store.

The inside of the planking above the tops of the bunks and and lockers should show so in the building care must be taken with the appearance of the inner side of the frames and planking. As I have said before you must bear in mind the item of weight in the building of Ripalong, and please remember that every little piece of wood adds to the sum and unless one is careful the structure will exceed the displacement I have counted on.

(*Continued on page 86*)

Advertising index will be found on 3rd last page

Speed-boat performance

...cruiser comforts

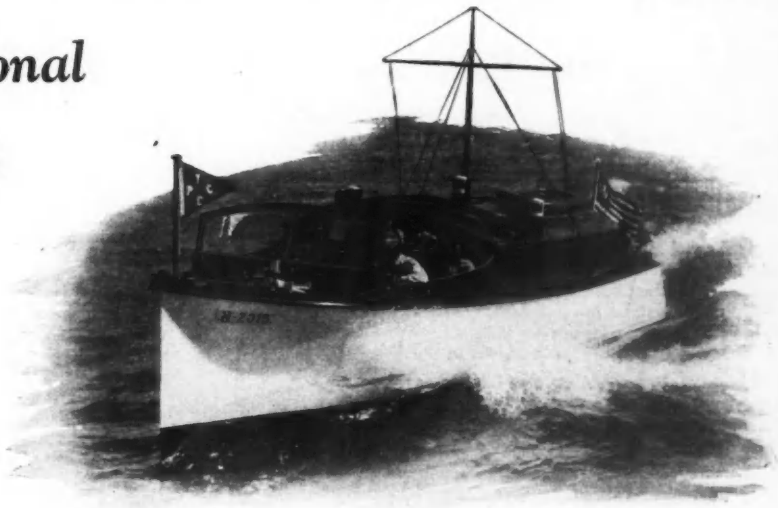
in the sensational

MATTHEWS

SPEED

CRUISER

in the famous
Matthews
Round-bottom hull



—the most talked-of boat of the day!

No boat of recent years has had such a profound effect on cruiser design as this smart and racy speed cruiser which less than a year ago came from the draughting boards of the Matthews designers. No other boat so quickly made itself the talk of the power-yacht world! And yet while it was quickly followed by other boats intended for like use, the Matthews Speed Cruiser is still a boat apart from all others. . . . Much of the tremendous success of the Speed Cruiser is directly traceable, not only to the clever designing, racy lines, and general all-around smartness, but also to the typical husky round-bottom hull construction which so thoroughly embodies all the Matthews skill and experience in building cruisers of utmost seaworthiness and staunchness. Sturdily safe in all weathers, the Speed Cruiser nevertheless delivers thrilling performance for the boat-lover who craves action—23 to 25 miles per hour with Kermath 150 h.p. marine engine as standard equipment. Write for literature with action pictures, interior views and detailed arrangement plan to scale.

"Complete cruiser accommodations" means exactly what it says. Space has been used with utmost ingenuity, providing a cabin with four individual pullman berths, with mahogany buffet, wardrobe, lockers, etc.; complete toilet and galley; and ample room for ten to twelve in comfort on day runs. These views give only a hint of the likeable comforts and conveniences. Above, a partial view of the galley. Below, looking forward through cabin proper to instrument panel in forward cockpit from which the boat is driven.

THE MATTHEWS COMPANY

PORT CLINTON, OHIO

Builders of Boats of Distinction Since 1890

SALES AND SERVICE: Belle Isle Boat and Engine Co., 8777 E. Jefferson Ave., Detroit, Mich. Bruns, Kimball & Co., Cor. Fifth Ave. and 15th St., New York City. Wm. V. Masson, 421 Munsey Bldg., Baltimore, Md. Walter H. Moreton Corp., 1045 Commonwealth Ave., Boston. Lake Erie Yacht Brokerage Corp., 1365 West 117th St., Cleveland. Mississippi Valley Yacht Sales, Times Bldg., Alton, Ill., and 1900 Locust St., St. Louis, Mo. R. Sealy, Commerce Bldg., Galveston, Texas. Robert V. Staats, Inc., 3000 Wilshire Blvd., Los Angeles. J. A. Scarlett, 436 East 2nd St., Cincinnati, Ohio.

The new

Autopulse

Electric Fuel Pump

Offers You New Boating Thrills!

..providing More Power.. More Speed..and Better Motor Performance!

Enjoy the full measure of performance from your motor boat with an Autopulse Electric Fuel Pump. Your motor takes on new life —new power—smoother performance. Regardless of the position of your boat, Autopulse assures an ample supply of fuel in the carburetor.

Turn on the ignition and clean, filtered gasoline is sent to the carburetor—as the speed of the motor increases or decreases fuel is supplied accordingly—in the exact quantity necessary for best performance.

Solve Your Fuel Problems Once and for All!

Install Autopulse and cast fuel worries to the winds! Autopulse operates entirely independent of the motor. It is the dependable, safe, sure method of fuel supply that turns boating worries into boating pleasures. It is easily installed on any motor. Leading manufacturers install Autopulse on their motors as standard equipment—manufacturers who fully sense the improvement performance effected by Autopulse.

A Fuel Supply System Providing Every Feature That Improves Performance!

Autopulse Single Unit has a maximum emergency capacity of over 12 gallons per hour. It provides a high degree of performance not possible with other methods of fuel supply. Less moving frictionless parts, requiring no lubrication, provide trouble-free operation and a reliable sustained fuel supply.

The AUTOPULSE Electric Fuel Pump is designed for use on MOTOR BOATS, OUTBOARD MOTORS, AUTOMOBILES, BUSES and TRUCKS

Autopulse Used and Endorsed by These Leading Manufacturers

A. C. F.
Albany Boat Works
Belle Isle Boat and Engine Co.
Buffalo Gasoline Motor Co.
H. E. Dodge Boat Works
Dunphy Boat Mfg. Co.
Elco Works
Gray Marine Motor Co.
Greenport Basis & Const. Co.
Hacker Boat Co.
Hall-Scott Motor Company
Fellows & Stewart
Packard Motor Co. (Marine Div.)
Newport News Ship Building and Dry Dock Co.
Sea Sled Corp.
Chris-Smith & Sons Boat Co.
Stearns Motor Mfg. Co.
Wilmington Boat Works
Gar Wood, Inc.
and numerous others

See Your Dealer or Write for Details!

AUTOPULSE CORPORATION

2821 Brooklyn Avenue **Detroit, Michigan**

Autopulse Improves the Performance of Any Motor

Ripalong—A Day Cruiser

(*Continued from page* 84)

Since there is nothing special in the way of fittings or materials, Ripalong can be built for a reasonable sum. Three layer fir plywood is used for decks, cockpit floor, bulkheads, bunk tops, and wherever possible. This goes on quickly and is not expensive. So long as the cockpit and deck is canvas covered and well painted, the plywood will last very well. I have used it in a great many small craft and it is all right.

The fuel tanks have a capacity of 45 gallons each and must be well made from either galvanized iron or copper. Splash plates will be required, at least four, because the tanks are long and shallow, having to fit in under the cockpit floor. The tanks should be so connected as to permit fuel to be drawn from either one or both; this is managed by fitting a globe valve at each tank feeding into a tee. From the tee fuel is supplied the motor by means of an Auto-pulse or similar fuel supply device.

This little day boat can be built by a professional builder for $3,400.00, including cushions, suitable high-speed marine motor, galley things, anchor, deck fittings, etc.

MoToR BoatinG has published some excellent books of boat designs and building instructions which amateur builders will find useful. A circular describing these will be sent on request. Readers who plan to construct this boat can also secure blue print copies of the drawings to a scale of ¾ inch to the foot at a moderate cost. Write the Editor, MoToR BoatinG, 959 Eighth Avenue, New York, N. Y.

Now here we have a description of Ripalong and her equipment. Next month I shall cover her construction including with this a number of easily understood sketches.

Speculation—A Class Boat

(*Continued from page* 56)

while fastening. Since there will be no caulking, the seams must fit perfectly and it is well to apply a coat of marine glue or paint to the batten and edge of the seams as the work progresses. Use No. 6 brass screws for fastenings ⅞ inch long and spaced at 2-inch centers.

Since the heads of the screws are to finish flush with the surface, it is not possible to plane the planks, so it must be smoothed off with a rasp and sandpaper. This is not exactly work for the leisurely inclined, but makes a beautiful finish if stuck to for a few days.

Before turning over, the bottom should be painted or varnished to prevent shrinkage or checking.

The deck beams are partly in; but if you will consult the construction plan you will find additional beams and several doubling pieces which must be attended to before the deck is put on. Also you must fasten in the mast step, and the metal fitting for the head stay.

Then proceed with the deck. The deck is the same as the planking but its battens are lighter, these being 5/16 by 1½ inches. Make the deck planks about 8 inches wide and run these with the center line. There is, however, a plank sheer 5 inches in width which follows the curve of the deck. Now to dress the thing up insert a narrow strip of teak or mahogany between the plank sheer and the straight decking, and between the king plank and the decking. It is surprising how much this adds to the appearance. Brass screws not over ⅝ inch long should be used for fastening the deck; number 5 should be about right.

The coaming will be ⅜ by 3 inch spruce or mahogany and fitted, as shown, at the ends, by a piece of 1/16-inch brass shaped to the angle of the ends. Brass screws should also be used for fastenings here.

Now the center board trunk: If you have followed the plans faithfully, the trunk can be made from the full size drawing, and should fit exactly when finished. I think its details are sufficiently clear in the plans. It must be fastened with 4-inch brass screws set at 5-inch centers. Paint or marine glue must be applied to the joining surfaces.

The seats and panting beams are plain sailing after the foregoing; be sure, though, that they are well fastened and save all the weight you can by using light woods for their construction.

Flooring can be very light and should run fore and aft between the frames, and not over them.

The rudder must be made of hard, close-grained wood; this also applies to the center board. Teak is the best for this purpose. The yokes should be of mahogany or teak and bolted so as to prevent splitting. You must remember there is a lot of strain on these parts when the wind blows.

All spars should be made from spruce; if these are hollow, so much the better. The mast fittings should be of bronze

(*Continued on page* 92)

Advertising index will be found on 3rd last page

Elco Boating

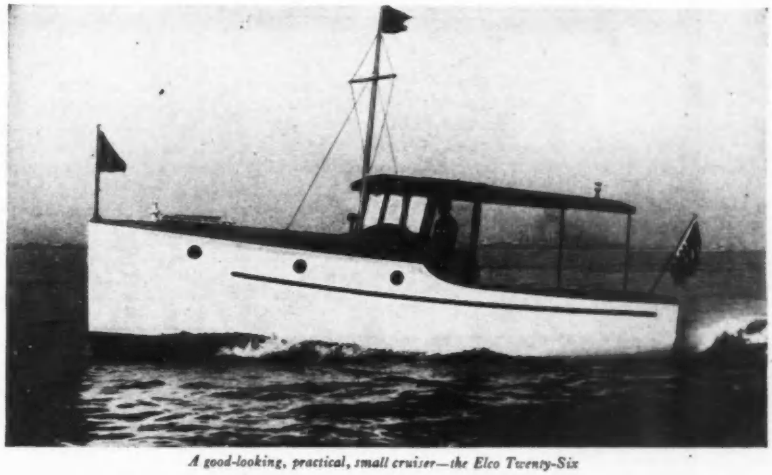
PUBLISHED MONTH TO MONTH BY THE ELCO WORKS, BAYONNE, N. J. . . . MAY, 1929

The Elco Twenty-Six

IT is now four years since the first of these excellent little cruisers was delivered from Bayonne. Since then several hundred have been placed in service until now the Twenty-Six vies with the Cruisette in popularity The success of these boats has borne out our belief that a small, inexpensive, but thoroughly practical cruiser would be met with general approval. About the same time the Elco Twenty-Six was placed in the market a number of other builders announced similar boats which sold for about the same price. It is significant that the Elco Twenty-Six is the only one now surviving, in fact, the only one of which more than a few have been built.

The model has undergone a considerable development since her inception. The first boat was offered at a price about a thousand dollars less than the present type, but the equipment was of the sketchiest and a four-cylinder motor was installed. Experience gradually showed what equipment was always purchased at extra cost and these items were added from year to year with a corresponding increase in price. A year ago the present six-cylinder motor was made standard. The current model is a very complete and comfortable little boat which is regularly furnished with the equipment essential to her operation.

The feature of the Twenty-Six which never fails to draw forth comment from those unfamiliar with the boat is the great amount of useful space in both cabin and cockpit. Within her overall length of 25 feet and 11 inches, she has more cabin and more cockpit than many boats ten feet longer. She will cruise four comfortably, sleeping them in the cabin, and there are two cases on record of owners cruising for three-week periods with seven people, the extra three being berthed on cots in the cockpit. For day sailing there is easily room for eight or ten.



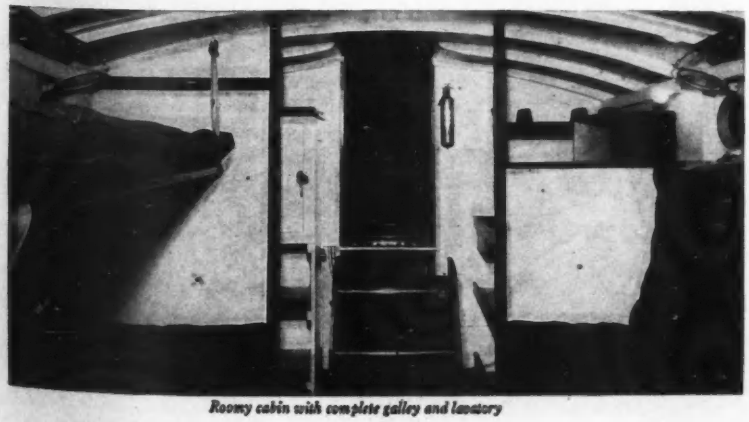
A good-looking, practical, small cruiser—the Elco Twenty-Six

The trim and fittings of the little boats have been kept as simple as is consistent with usefulness and a yachty appearance. The purchase price all goes to buy boat and not fancy trimmings. This is partly responsible for the low cost. The other reason is that the boats are built in large quantities, all alike, instead of being built a few at a time and subject to variations.

In seaworthiness the Elco Twenty-Six is the peer of any boat of her length. She will come through the most trying conditions without shipping green water and in perfect safety. A small boat, naturally, is more active in her motions than a large one, but the sea-keeping qualities of the Twenty-Six have been demonstrated repeatedly and often bring owners into Port Elco to talk of the blows they have successfully weathered with their boats. The raised deck hull form of the boat helps to keep the boat dry. It is the strongest type and in a small boat gives a little extra room below decks. In addition, it is less expensive than the trunk cabin and therefore helps in keeping the price down.

The propeller shaft arrangement is a noteworthy feature of the Elco Twenty-Six. The engine is set slightly off center and the shaft is carried in non-metallic bearings along the port side of the dead wood instead of through the conventional shaft log. To those unfamiliar with boats, this arrangement may seem strange, but it is common for auxiliaries in which the propeller is frequently off center by several feet. Any single screw boat has a natural tendency to turn in one direction due to the throw of the screw. On the Twenty-Six the shaft is set on the side to partially counteract this. A special stuffing box casting with a long flax bearing takes the shaft through the garboard plank, and a stern bearing casting with rubber bearing is securely fastened to the deadwood. The opposite side of the deadwood is faired away to allow a free flow of water to the propeller. The entire arrangement is eminently satisfactory—reducing repairs and maintenance to a minimum.

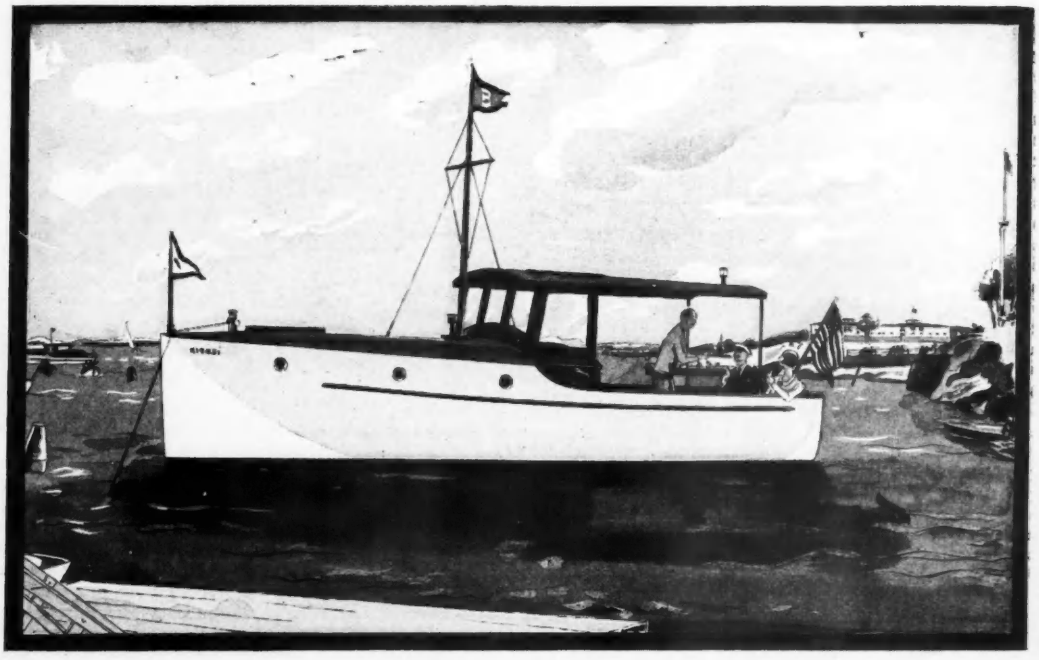
Taken all in all it would be hard to find a better small cruiser, and since the pleasure a boat can bring is fortunately not measured by her purchase price, the Elco Twenty-Six is bringing the joy of cruising to hundreds who would otherwise be forced to stay ashore.



Roomy cabin with complete galley and lavatory

A Summer home afloat...

RENT FREE



"IT might well be called Elco harbor," say Mr. and Mrs. Clarence Meissner* of the harbor in New Rochelle which is the home mooring for their Twenty-Six during the summer months. Here, secure and sheltered, a whole happy family of Elcos lies expectantly at anchor.

The "Miramar," its owners point out, is not only a graceful, seaworthy little boat, but a veritable summer home on the water. A home in which they can cruise at will, drop anchor whenever whim may dictate.

During the week Mr. Meissner commutes from New York, to find each evening on the Miramar's friendly decks complete escape from the oppression of city noise and heat. Mrs. Meissner speaks delightedly of the ease of the Elco housekeeping. Provisions and ice are delivered regularly by boats in the harbor, and the galley equipment is a miracle of convenience. A signal to the yacht club brings the club launch quickly alongside for visits to other boats or to the club.

Week-end trips to Lloyd's Harbor and to Northport—sometimes to Montauk and Block Island—add to the interest of life afloat. The Miramar often shelters six for these short cruises—four sleeping in the cabin and two in the cockpit. For supper parties and daytime picnics it can comfortably entertain eight.

These Elco owners are particularly impressed with the economy their boat makes possible. No rent, no taxes, no expensive repairs. Plenty of room for guests and yet, with the lifting of the anchor, the possibility of complete privacy at any time. Certainly, Mrs. Meissner says, an ideal kind of summer home!

Elco
MOTOR BOATS

• • •

The history of every Elco boat is as thrillingly individual as the man who owns it. For each owner finds in the opportunity for independent voyaging a constant stimulation and a challenge, and each responds in a characteristic way.

At Port Elco, where we will be glad to receive you at any time, you can get right aboard a Twenty-Six (or any other model on display). Or write to Port Elco and we will send you Catalog MBG.

PORT ELCO (*Permanent Exhibit*)
247 Park Ave., at 46th St., New York
Distributors in Boston, Detroit, Los Angeles and Fort Lauderdale. Plant and Marine Basin, the Elco Works, Bayonne, N. J.

The Elco Fleet: Twenty-Six, $2,975; Veedette, $4,875; Cruisette, $5,950; Thirty-Eight, $10,750; Forty-Two, $16,500; Fifty, $25,500.

*Although this series of advertisements recounts bona fide experiences of Elco owners, the names used are fictitious.

From Sailor to Landlubber

THE Sailor and the Landlubber stood talking down by the dock on a warm spring afternoon while preparations for the season afloat made a pleasing bustle and rush among the boats around them.

Said the Landlubber to the Sailor:

"You know all about boats and I am just getting mine so perhaps you can explain some things I don't understand."

"I'd be glad to tell you all I can, but you are wrong in thinking I know all about boats. I have only been boating for twenty or twenty-two years. Many men spend all their lives at it and even they don't know all about boats."

"But they told me it was easy to learn to run a boat!"

"It is, but running a boat isn't knowing all about one. Running a boat in open water involves little else than the possession of reasonably good eyesight and a little common sense. But it's funny how many people don't even seem to have that."

"What do you mean?" said the Landlubber, bristling a little.

"There is a good example now," replied the Sailor, pointing to a boat coming into the basin at almost full speed. "If the owner of that boat used any common sense he wouldn't be running wide open and throwing such a wash. If he were that chap painting his top sides there he'd feel like heaving the paint pot at anyone who did such a thing. You yourself have been raising the roof because your boat isn't ready on the exact date that was determined way back last winter. Your common sense should tell you that the yard people here are doing their utmost to please you and the two hundred odd other purchasers of new boats, but that when all the work concentrates in a few weeks like this it is sometimes physically impossible to exactly meet a date set long before the keel was laid."

"But my automobile was delivered on time and I don't see why my boat should not be."

"Your car is the result of a number of machine processes repeated many thousands of times, while your boat is the product of highly skilled hand labor under varying conditions which speed up or slow down the work. Have you ever heard of a positive delivery date on a new house? A cruising boat is, in a sense, a combination of house and car."

"I never thought of it that way," said the Landlubber. "But tell me, why is a boat not as reliable as a car? A friend of mine who got one last year said he had all sorts of trouble."

"A modern boat is just as reliable as a modern car, provided it gets the same necessary amount of attention. How many boat engines do? What they usually get is neglect. The owner leaves his boat all week closed up tight and then on Saturday all he does is to press the starter button and go. Try that on your car and see how long it runs. Leave it on the beach so that high tide laps the crankcase and moisture reaches every part, never change the oil or add water to the battery, and pour a quart or so of water in the gas tank and then try to run the car at full power in low gear up a hill all day, and see what you think of its reliability."

"Maybe you're right, but I don't see why a new boat just from the yard should not be in perfect running order. My friend said his boat leaked, the battery ran dry and there were all sorts of minor troubles."

"That is the nature of boats," was the Sailor's answer. "And ships too for that matter. Surely you know that even battleships when new have to make a long shakedown cruise and then come back to the navy yard to have the things fixed that have made trouble. A boat is a highly complex and delicately balanced structure and she must go through a considerable period of finding herself before she is fit for service. To a true boatman this period of tuning up is one of the most pleasurable of all. It is then that his loving care and painstaking efforts bear fruit in a truly perfect ship.

"Your friend's troubles were probably perfectly normal ones that he would have been prepared for had he known anything about a boat. Any new boat leaks a little until she swells tight. Even then the average boat will weep a little water, say three or four buckets full a week. Being new, the battery was fully charged and running at the normal charging rate simply boiled the battery and ran the water down very rapidly. No new boat ever left a builder's yard that didn't need a lot of attention for the first few months."

"You sound discouraging," said the Landlubber dubiously. "How am I going to know what to do to my boat when I get her? I'm not a carpenter or a mechanic to amount to anything. I bought the boat to run and not to work on."

"Your saying that simply shows that you have got to go through a shakedown period just as your boat does. One of the chief pleasures of boating is the feeling of self reliance that the owner constantly feels if he knows his boat intimately, cares for her and learns her strong points and her faults. On board you are in actual fact the sole master of your ship. Your pleasure will be far greater if you can be independent of service people and can put to sea confident that you are fitted to meet any situation and master it.

"A boat is not a soulless collection of metal parts like a car. It is a living fabric and responds to her owner's skilful care and handling much as does a spirited horse. The mere act of running a boat is only a small part of the fun. Before you can consider yourself a true yachtsman you will be something of a carpenter, mechanic, rigger, sailmaker, painter, deck hand, and cook, in addition to being a seaman and a navigator. But you need not be discouraged about all this. It comes with time and experience, and there is pleasure in the learning. You will probably be inclined to blame your boat and damn her builders many times when it is really yourself at fault. I have done just that myself and so has every other boat owner who has passed the novice stage. And you may be sure of sympathetic help and advice from boat people if you are willing to accept it. That sort of thing is in pleasant contrast to automobiling where about the only attitude is one of 'get the hell out of my way.'"

"You certainly have given me a new slant on this boating game," said the Landlubber. "I'm glad I talked with you, although I confess you have scared me a little. Perhaps I had better hire a captain to go with me until I know more about it."

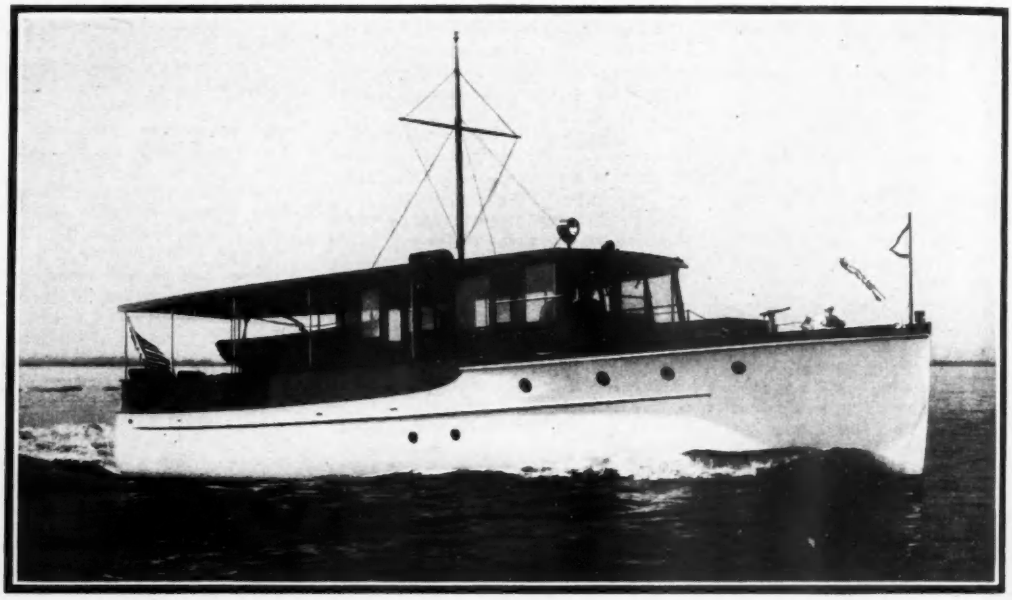
"Don't do it!" was the Sailor's emphatic answer. "A captain for a 34-foot boat is like a chauffeur for a flivver, and if you really want to learn you must do things yourself. You will get into trouble probably, but you will get out of it too, and the satisfaction in that is enormous. I envy you in having all your experience ahead of you.

"Well, I must be going now; see you later. And by the way, when you get the boat let me know. I'll run her around to the club with you and help you get your mooring placed."

The Elco Cruisette—ideal for either Sailor or Landlubber

THE QUEEN OF THE *Elco fleet*

The Fifty . . . a luxuriously comfortable, completely equipped motor yacht—the finest model in the 1929 Elco Fleet.



A Yacht with Cruiser Convenience

Running hot and cold water is one convenient feature of the Fifty's galley equipment. The gas stove is a 4-burner white enamel with oven and broiler.

MEN who have had bigger boats and now own the Elco Fifty say: "Everything that we had on larger yachts we now have on the Fifty, plus the convenience and handiness of a cruiser."

The Elco Fifty is as comfortable as a larger, more expensive boat. Yet it has the maneuverability, the ease of operation and low maintenance costs offered only by a cruiser. Designed and constructed according to principles established in thirty-six years of practical cruiser construction, it offers the ideal combination of luxury, seaworthiness and reliability that yachtsmen everywhere seek.

The Elco Fifty has two spacious staterooms. Additional berths in lobby and deckhouse. Complete sleeping arrangements for six persons. Bathroom with shower. Completely equipped galley. Quarters forward for crew of two.

And as for the boat itself—length 50' 9", beam 12' 9", draft 3' 0". Keel and frames oak, cedar planking copper riveted—deck house, trunk and trim mahogany—deck house with sliding windows. Main deck sheltered by permanent awning. Dinghy cabin 11-foot lap strake, cedar and mahogany—carried on after trunk, with davits, boat boom and gear.

Two Elco engines—six cylinders—125 H.P. Speed 14-15 miles per hour—fuel capacity two 175 gallon tanks—cruising range 220-360 miles. Wheel and controls in deck house. Price complete, $25,500. ***For full details write for catalog M. B. G.***

Wide, comfortable berths—carpeted floor—windows on two sides—private bathroom, with shower—no detail has been overlooked in designing the owner's stateroom.

The Elco Fleet

Twenty-Six	$2,975
Veedette	4,875
Cruisette	5,950
Thirty-Eight	10,750
Forty-Two	16,500
Fifty	25,500

Elco
TRADE MARK
MOTOR BOATS

PORT ELCO
(Permanent Exhibit)
247 Park Avenue, at 46th Street, New York

Plant and Marine Basin, The Elco Works, Bayonne, N. J.

Distributors in BOSTON—*New England Marine Sales Co., 882 Commonwealth Avenue* ~ CHICAGO—*Henry C. Grebe & Co., 400 North Michigan Avenue*
LOS ANGELES—*Yacht & Motor Sales Corp., Wilmington, Cal.* ~ FT. LAUDERDALE, FLA.—*Lauderdale Yacht Basin, Inc.*

Monel Metal Shafts

now standard power factor in

Wheeler "Playmate" Sea Skiffs

Wheeler "Playmate" Sea Skiff, built by WHEELER SHIPYARDS, Brooklyn, N. Y. The improvements added to the 32 ft. and 36 ft. models for 1929 include Monel Metal shafts and sheet Monel Metal galley trim as standard equipment.

Here's one requirement of good boat building

How does a boat builder build a reputation? By building boats that represent the greatest value, as indicated by utmost dependability and longest possible service-life.

That type of boat building calls for the use of Monel Metal shafts. For Monel Metal is dependable, economical, long-lived.

Monel Metal combines rigidity, toughness and remarkable strength all in the one metal. It resists the corrosion of salt water—it will not rust. A Monel Metal shaft will not whip—it helps reduce vibration.

Monel Metal shafts are supplied with a high surface finish—almost glass-like. As a result they are practically friction-less. The result is less wear on packing and bearings. They are cold-drawn to the closest commercial tolerance—they are a high grade product in every way.

If you are interested in Monel Metal—either for shafting, galley trim or hull fastenings—we suggest that you write for additional information.

THE same properties that make Monel Metal so valuable for propeller shafts, also make it the ideal metal for many other marine parts and fittings. Monel Metal is available in the following shapes and forms; sheets—tubing—strip—wire rope—wood screws—nails—rivets—bolts and nuts—lag screws, etc. Have your next boat put together with Monel Metal wood screws. For detailed information about Monel Metal in any form, write The International Nickel Company, Inc.

Monel Metal shafts increase the life of babbitt or bearing bronze, and are especially recommended with Goodrich Cutless rubber bearings

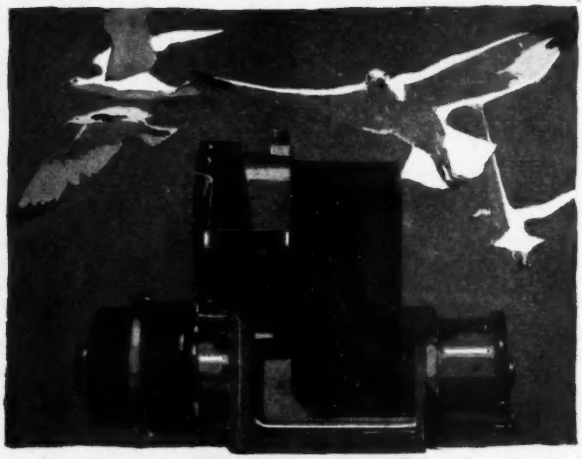
SEND FOR NEW FOLDER, "SHAFTS THAT STAND THE GAFF"

Monel Metal is a technically controlled Nickel-Copper alloy of high Nickel content. It is mined, smelted, refined, rolled and marketed solely by The International Nickel Company, Inc. The name "Monel Metal" is a registered trade mark.

MONEL METAL

THE INTERNATIONAL NICKEL COMPANY, INC., 67 WALL STREET, NEW YORK, N. Y.

MONEL METAL



AMERICAN
BOSCH
"U" type MAGNETO

THE new "U" type American Bosch Magneto was designed and built by American Bosch Engineers for trouble-proof operation under the severest of modern operating conditions. It is more compact, structurally better, simpler and lighter in weight than any magneto heretofore produced. In field and laboratory tests it has been subjected to the severest conditions ever applied to a magneto. In addition, customer tests have proved its operating efficiency to the extent of its adoption by the foremost marine engine manufacturers throughout the country. The new "U" type American Bosch Magneto is sealed against dust, dirt, moisture and oil. It cannot be over-oiled—the bearings are lubricated and sealed at the factory. The new American Bosch "U" Type Magneto warrants the most careful consideration by those who want economical and trouble-proof magneto service. Write for details of the New "U" Type Magneto.

AMERICAN BOSCH MAGNETO CORPORATION
SPRINGFIELD MASSACHUSETTS
BRANCHES NEW YORK DETROIT CHICAGO SAN FRANCISCO

Speculation—A Class Boat

(*Continued from page* 86)

throughout; this also applies to the rest of the fittings such as blocks, cleats, turnbuckles, etc. Standing rigging should be 3/16-inch galvanized iron, and running rigging 5/16-inch white cotton rope.

The sail on the little boat that The Mill River Boat Works are building for me will be of 3½-ounce Turkey red balloon silk cross cut and has been made by William Fuller, City Island, N. Y.

It may not be amiss to mention that the cost of this little boat, complete, all nicely built, will be $780.00. Those who contemplate building can secure blueprints to a scale of 1 inch to the foot, and at moderate cost, by writing to the Editor, MoToR BoatinG, 959 Eighth Avenue, New York, N. Y.

America Is Boat Minded

(*Continued from page* 22)

present, no matter how much English enthusiasts would like to race in America, they have no opportunity except in the British International Trophy, and recalling further that the people who can afford such competition are few and far between, it will be realized that British competition must ever remain at low ebb in this class.

There is however, a great opportunity, it seems to me, for the development of a new class, which Mr. Chapman, the editor of MoToR BoatinG has already mentioned to me. This class, as I understand it, will be a five and a half litre type, with various limitations as to horsepower and hull design. From conversation regarding this new class, I consider it ideal from the point of view of international competition.

So well have I liked the treatment received by every one with whom I have had any contact in relation to racing boats while in America, that if there is anything on earth I can do for the sport I shall be more than happy to do it. I have already made a resolution to leave no stone unturned when I do get back to England to secure for the Miami Beach regatta in 1930 the maximum number of British entries, and I think beyond all doubt, that you will have some interesting English boats to watch next year. We realize exactly what we are up against and we shall not bring boats over unless they are good boats, our only object being to increase friendly competition and give the public and the regatta officials the best run for their money that we possibly can.

Should I be able to be of any assistance to American competitors who may come to England to participate in any of our boat races, they need only call on me. American competitors will find in the British Power Boat Company service station at Southampton an ideal spot to use as their base. I am sure I voice the feeling of Scott-Paine, its owner, when I say he will welcome all American boat drivers with open arms.

Practical Knots and Splices

(*Continued from page* 41)

border, ends of manila rope can be whipped and concealed under other parts. In the center of tray glue a photograph of your boat or yacht or any marine picture desired and cover the edge of picture with a grommet of six thread manila. You can then make individual knots to fill any open space, such as 380, 386, 394, 396, 398, 401, made of two parts with a lanyard knot in all ends and yarns frayed out to form a tassel. When making this tray, it is well to make the knots and temporarily brad them in place so that they can be shifted, finally sinking brads out of sight. Now cover knots with a plate of double thickness glass the same size as foundation board. Screw border strips of wood around edge of ¼ inch thickness with corners bevelled and wide enough to allow for a small moulding inside edging to hold glass in place. Stain and varnish edging and moulding and when dry attach a brass or nickel plated handle in center of each narrow end. Or if to be real nautical, handles can be made of 1¼ inch in circumference manila, with manrope knots and ends frayed into tassels and secured to tray through brass screw eyes or flat brass clamps. This will make a novel, nautical serving tray. Green felt should be cemented to bottom of tray.

CHICAGO BOAT SHOW

The Chicago Stadium, Paddy Harmon's new arena on West Madison Street, which will be the largest exhibition building in the world, has been selected by the American Power Boat and Engine Manufacturers Association for the holding of their annual Motor Boat Show, on May 1 to 5, this year.

This will be the first Motor Boat Show held in Chicago in over sixteen years, and with the sponsorship of the manufacturers should be one of the biggest of its kind in the history of the industry. Many interesting novelties and competitions are being planned for show week, which comes at the time of the year when motor boating interest is at fever heat.

Advertising index will be found on 3rd last page

This amazing value..

through A. C. F. purchasing power and production methods

HERE, in thirty feet of skillful marine engineering, is a cruiser which all seasoned yachtsmen acknowledge as a masterpiece.

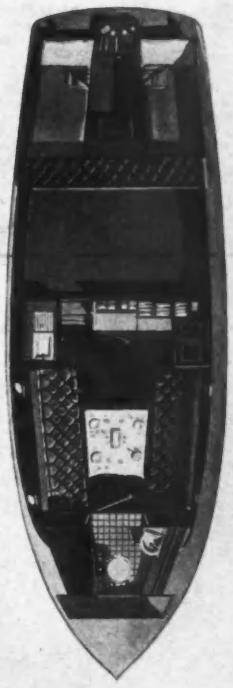
The success of the A. C. F. "30" is due to the fact that it is a product of the American Car and Foundry Company, noteworthy for its purchasing power and its command of skilled labor and fine materials.

Wherever you look, you see *extra* values . . . new beauty of interior fittings, new grace of craftsmanship, new sturdiness, new comfort.

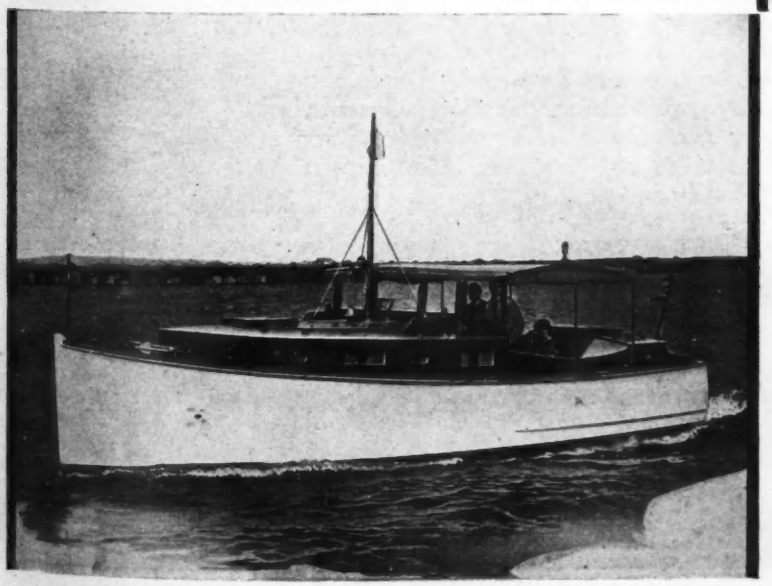
Imagine a 30-foot cruiser actually providing comfortable sleeping accommodations for six people and day-cruising capacity for many more. There are TWO cabins, each fitted with wide, luxurious beds; a lavatory which is a model of neatness and convenience; a galley which boasts its stove, oven, ice-box, and capacious lockers; and a cockpit which is a revelation of commodious comfort. And like all other craft in the A. C. F. fleet, the "30" is completely equipped, ready to cruise, even to china, linen and silver.

Yachtsmen are urged to compare the A. C. F. "30", at its remarkably reasonable price, with any other craft afloat . . . quality of craftsmanship and fittings, seaworthiness, grace of design, and compact completeness.

See the A. C. F. "30" at any A.C.F. showroom, or, if you cannot call, write for the "Thirty Book" which will be sent without cost or obligation. Write today.



The Famous A. C. F. "Thirty"



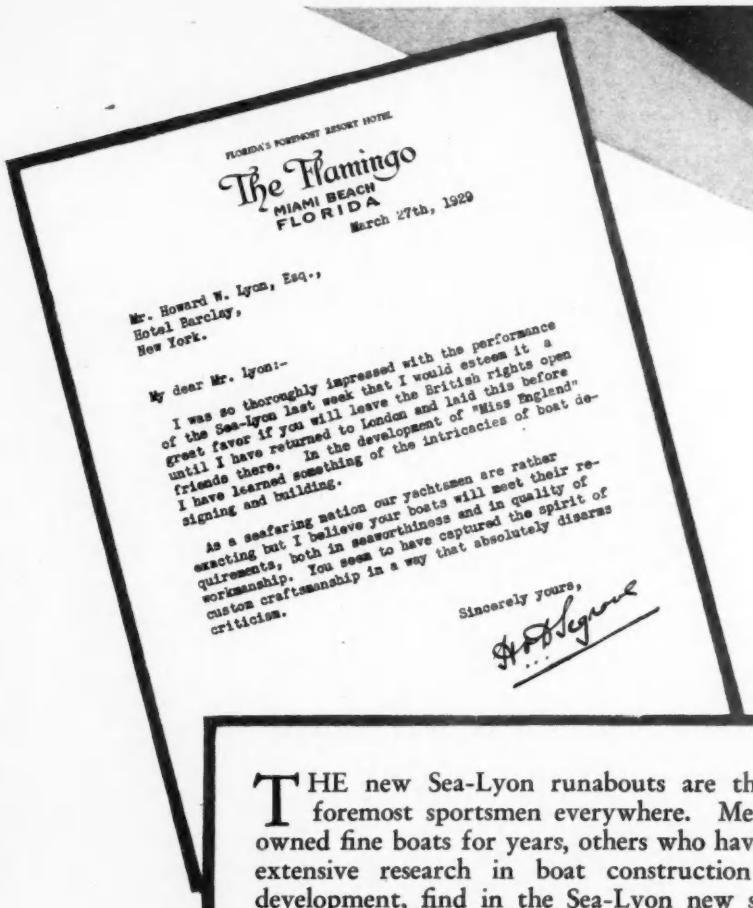
Price $4950

Other models, A. C. F. cruisers

CRUISER-RUNABOUT . .	$ 5,750
30 OPEN DECK	4,950
40 DOUBLE CABIN . . .	13,950
40 DAY CRUISER . . .	13,350
THE FAMOUS 47 . . .	21,000
54 TWIN SCREW . . .	32,500
68 SEAGOING YACHT . .	60,000

AMERICAN CAR AND FOUNDRY COMPANY

A. C. F. Marine Salon, 217 West 57th Street, New York. Other showrooms at: Boston—Noyes Marine Sales Co., 1037 Commonwealth Avenue. Detroit—A. C. F. Salon, 500 E. Jefferson Avenue. Cleveland—N. J. Shea, 1424 Lauderdale Avenue, Lakewood. San Francisco—S. C. Kyle, 427 Rialto Building. Chicago—Ward A. Robinson, 8 S. Michigan Avenue. Wilmington, Del.—American Car and Foundry Company.



FLORIDA'S FOREMOST RESORT HOTEL

The Flamingo
MIAMI BEACH
FLORIDA

March 27th, 1929

Mr. Howard W. Lyon, Esq.,
Hotel Barclay,
New York.

My dear Mr. Lyon:-

I was so thoroughly impressed with the performance of the Sea-Lyon last week that I would esteem it a great favor if you will leave the British rights open until I have returned to London and laid this before friends there. In the development of "Miss England" I have learned something of the intricacies of boat designing and building.

As a seafaring nation our yachtsmen are rather exacting but I believe your boats will meet their requirements, both in seaworthiness and in quality of workmanship. You seem to have captured the spirit of custom craftsmanship in a way that absolutely disarms criticism.

Sincerely yours,

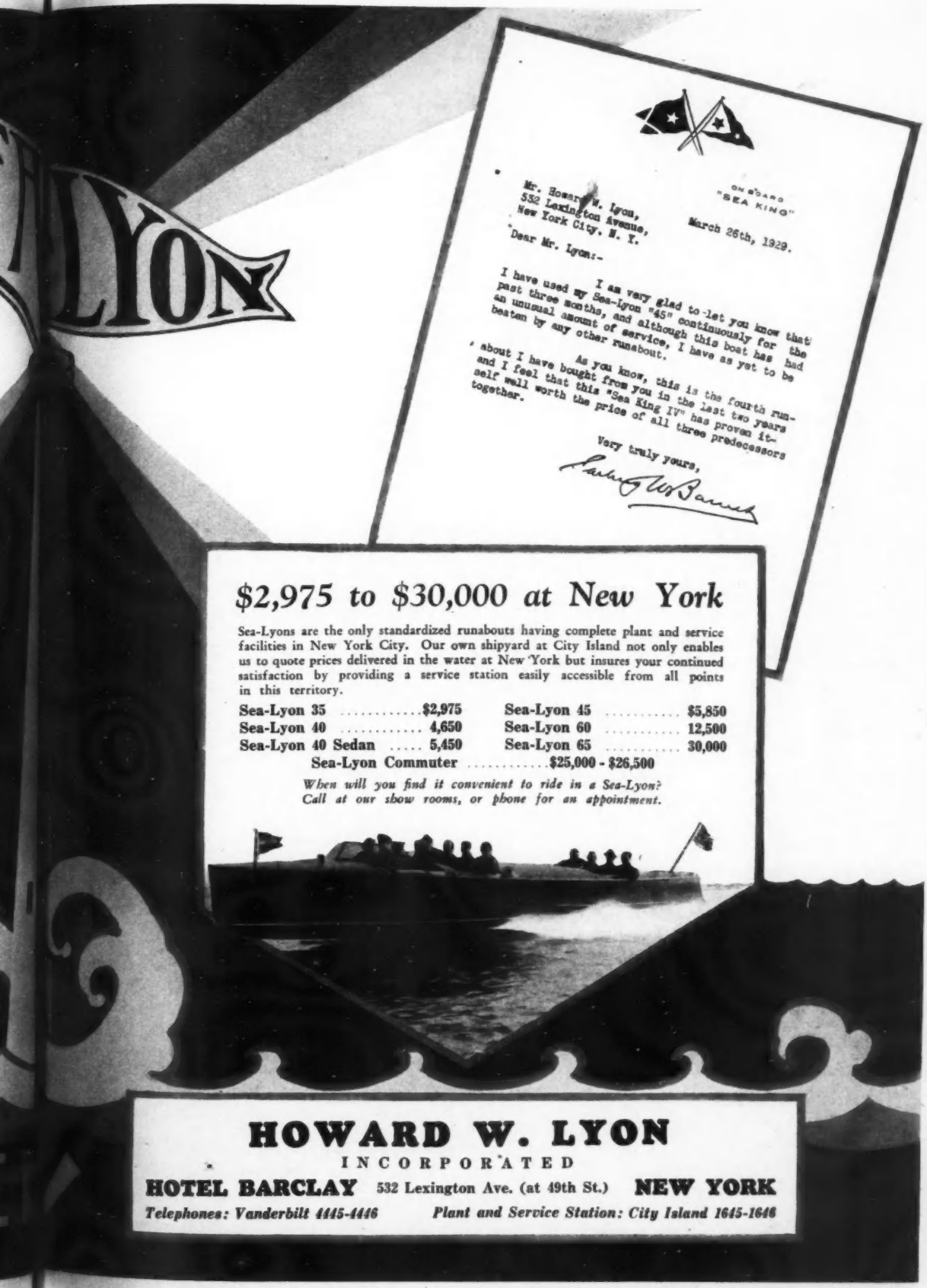
H. O. D. Segrave

THE new Sea-Lyon runabouts are the choice of foremost sportsmen everywhere. Men who have owned fine boats for years, others who have conducted extensive research in boat construction and speed development, find in the Sea-Lyon new standards of quality and performance.

For example, Major H. O. D. Segrave holds the world's speed record of 231 miles an hour on land, and in his "Miss England" won the motor boat championship of the world at Miami Beach in March. His sincere approval of Sea-Lyon qualities is the expression of a man who knows boats as few sportsmen know them.

Sea-Lyon characteristics of appearance, finish, speed, seaworthiness, safety and durability of construction are such a marked advance that you must see these boats and ride in one to appreciate the latest stage of runabout development.

Advertising index will be found on 3rd last page


LYON
ON BOARD
"SEA KING"
Mr. Howard W. Lyon,
532 Lexington Avenue,
New York City, N. Y.
March 26th, 1929.
Dear Mr. Lyon:-
I am very glad to let you know that I have used my Sea-Lyon "45" continuously for the past three months, and although this boat has had an unusual amount of service, I have as yet to be beaten by any other runabout.
As you know, this is the fourth runabout I have bought from you in the last two years and I feel that this "Sea King IV" has proven itself well worth the price of all three predecessors together.
Very truly yours,

$2,975 to $30,000 at New York

Sea-Lyons are the only standardized runabouts having complete plant and service facilities in New York City. Our own shipyard at City Island not only enables us to quote prices delivered in the water at New York but insures your continued satisfaction by providing a service station easily accessible from all points in this territory.

Sea-Lyon 35	**$2,975**	**Sea-Lyon 45**	**$5,850**
Sea-Lyon 40	**4,650**	**Sea-Lyon 60**	**12,500**
Sea-Lyon 40 Sedan	**5,450**	**Sea-Lyon 65**	**30,000**
Sea-Lyon Commuter	**$25,000 - $26,500**		

When will you find it convenient to ride in a Sea-Lyon? Call at our show rooms, or phone for an appointment.

HOWARD W. LYON
INCORPORATED
HOTEL BARCLAY 532 Lexington Ave. (at 49th St.) **NEW YORK**
Telephones: Vanderbilt 4445-4446 *Plant and Service Station: City Island 1645-1646*

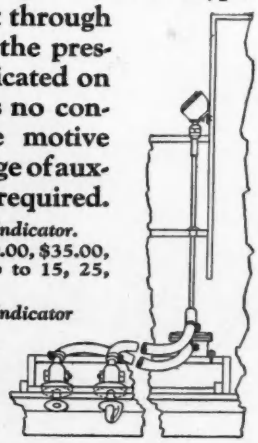
What Is the Best Speed for Your Boat?

A RELIABLE speed indicator will tell you easily what your boat's most efficient speed is. Then it will help you keep her at that speed.

A glance at the dial—placed anywhere you wish it—shows just how fast you are running. A great help in navigating by chart and compass—and a splendid check on your power plant always.

These devices have been fully tested and proved to be dependable gauges. They are giving valuable service to owners of small and large boats of all types.

Passage of boat through the water creates the pressure which is indicated on the dials. There is no connection with the motive power, nor is towage of auxiliary apparatus required.



National Marine Speed Indicator.
4 Models, $25.00, $30.00, $35.00, $40.00, for speeds up to 15, 25, 35, 60 M. P. H.

National Marine Speed Indicator and Log.
2 Models, $100.00 and $120.00, for speeds up to 35 and 60 M. P. H., and trip as well as total mileage.

Write today for our catalog

THE NATIONAL LOCK WASHER COMPANY
Newark, New Jersey, U. S. A.

2831

Where to Buy Boats in New York

(*Continued from page* 45)

built which in turn tends to bring the price down and the cycle can start again.

Among the many large showrooms in New York City that of Bruns Kimball & Company at Fifth Avenue and Fifteenth Street will readily take the honors as being the largest of its kind anywhere. They occupy an enormous corner showroom and one can gather an idea of its size from the fact that there are on display no less than fifteen boats of large size. Handling as they do a wide choice of types and sizes, one will find six of the popular Mathews cruisers on their sales floor, which are fully equipped and ready to move into the water. The smaller Richardson cruisabout is another of their lines and the three different models of these handsome little boats are also displayed on their floors. To complete the types they are also distributors for the fast Hacker Dolphin runabouts, and six of these speedsters occupy prominent positions in the show window space. They run through the several sizes and types so that a selection is a simple process. In addition to the boats carried this firm also handles the Sterling and Kermath marine engines and a complete series of both of these manufacturers are available for the critical inspection of the purchaser. A basement showroom of equal size to the main floor is used for the large stocks of rebuilt engines which this company carries as well as the service and parts departments for their engines.

Further uptown the American Car & Foundry Company have long had an attractive marine salon at 217 West 57th Street. This company not alone maintains this showroom in New York but others in Boston, Detroit, Cleveland, San Francisco, Chicago and Wilmington, Delaware. In the New York showroom can be found the smart little 30-foot A. C. F. cruiser and also a complete large cruiser, 54 feet in length. This boat is one of the largest which has ever been permanently displayed in the showroom and the feat of moving a craft as large as this through New York's dense traffic is in itself a noteworthy one. The display of smaller boats varies from time to time and occasionally others are added to those in the showroom so that the display is changing and always interesting. This company also displays a complete series of Hall-Scott marine engines in both the direct and reduction gear types. Service Departments for these are also at this address. Another new boat which is handled from this sales room is the Robinson Sea Gull express cruiser, which is built in Benton Harbor, Michigan. This boat, constructed along the lines of a high speed runabout, is equipped with a 200 h. p. Hall-Scott engine and is finished entirely in varnish over natural mahogany and teak used in its construction. It makes an exceptionally attractive craft on the floor of the sales room.

The Grand Central Zone in New York can well lay claim to being the most densely populated business area in any city. In this Howard W. Lyon, Inc., has placed his show room at 532 Lexington Avenue and displays an extensive series of his fast Sea Lyon runabouts. These range from the smallest Sea Lyon 35 through the fastest Sea Lyon 65 and, as is frequently the case, the boats in the sales room are moved and changed as conditions require. In addition to these will also be found in this sales room some of the Laconia outboard runabouts in both the hydroplane and runabout types. Johnson outboard engines as power plants for these can also be seen and examined. The plant where the boats are built and serviced is at City Island at the entrance to Long Island Sound and easily accessible for demonstration trips.

One of the most attractive show rooms is the new one recently opened by the Horace E. Dodge Boat Works at 3 East 52nd Street. The interior arrangement and appointments have been most artistically carried out and follows in a general way the Spanish style of architecture with colorful awnings and lighting effects which bring out the beauty of the boats displayed to the best advantage. At the present time the show room contains one each of the 20 foot, 26 foot and 30 foot sizes of runabout, the 26 foot model being fitted with the sedan enclosure. These boats are provided with a choice in power plants and in the 20 foot type, a four cylinder Dodge engine or a six cylinder Universal engine are supplied as standard equipment. With these speeds up to 31 m. p. h. can be attained in a boat which has a capacity for six passengers divided into two cockpits. The 26 foot sedan runabout is a larger and roomier craft and by reason of its ability to carry larger engines is also very much faster. A choice of engines is provided, an eight cylinder Lycoming engine or one of several of the larger Scripps engines up to 200 h. p. With these the top speed is 45 m. p. h. and in a boat capable of carrying ten persons, this is a very high rate of speed. The largest of the Dodge craft is the 30 foot runabout which is fitted with much greater passenger capacity, being able

(*Continued on page* 100)

For Sale

—and Immediate Delivery!

A fast, new, 50 foot Consolidated Day Cruiser—with an all mahogany hull —2 cockpits (forward and aft)—owner's double cabin, with beautifully finished, tastefully decorated dressing room.

Spacious, inviting deck house, galley and sleeping quarters for six and crew. Powered with 170 h. p. Speedway engine. Speed 20 miles an hour. Immediate Delivery, subject to prior sale. Write today for complete information.

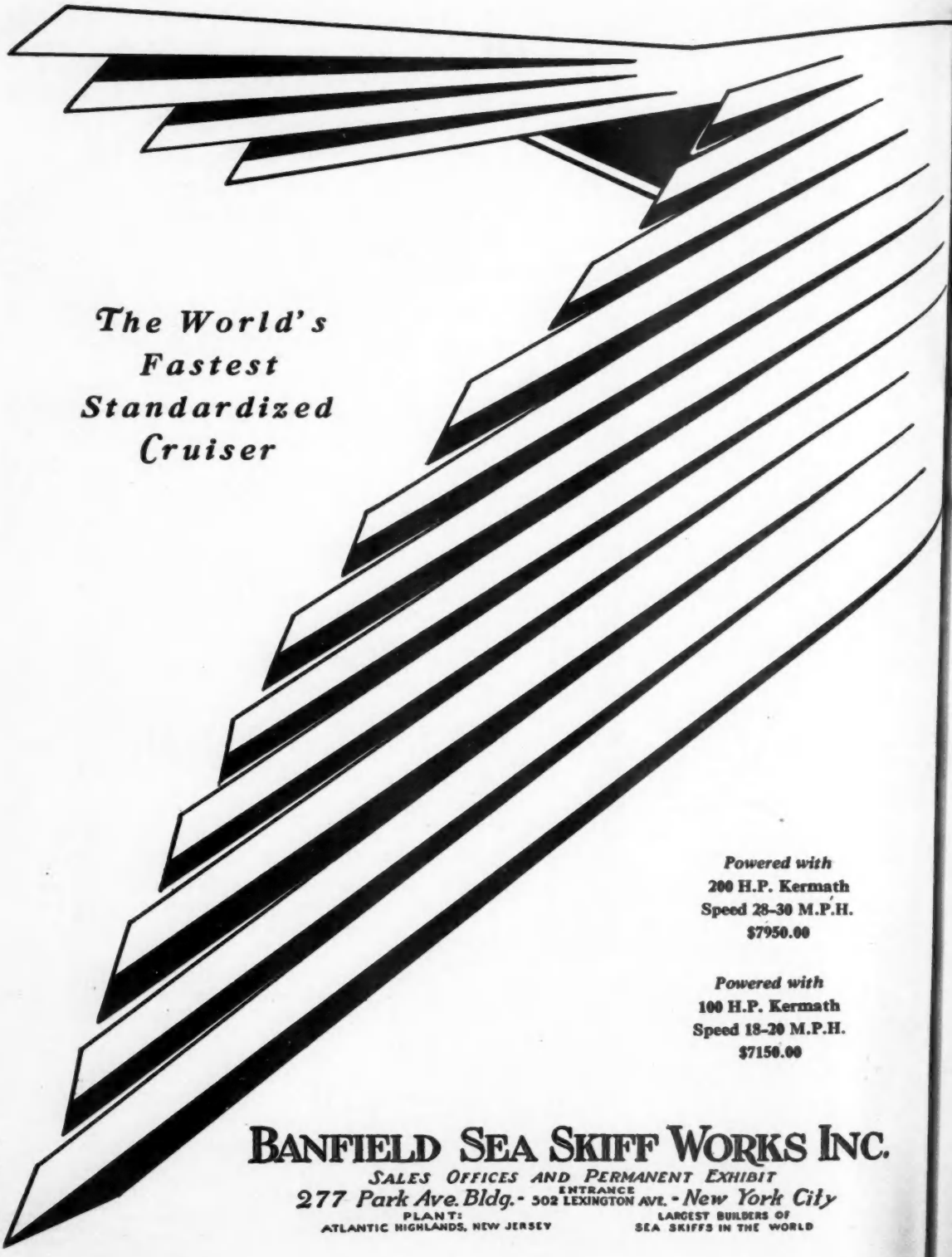
MOTOR YACHTS
CRUISERS
RUNABOUTS
PLAYBOATS
COMMUTERS
TENDERS

Speedway
DIESEL AND GASOLINE ENGINES

CONSOLIDATED
SHIPBUILDING CORPORATION
MORRIS HEIGHTS NEW YORK

For nearly 50 years Consolidated Craft have enjoyed the enthusiastic endorsement of the leading yachtsmen of the world.

We invite consultations—ask us for suggestions or literature concerning any type of pleasure boat.



The World's Fastest Standardized Cruiser

Powered with
200 H.P. Kermath
Speed 28-30 M.P.H.
$7950.00

Powered with
100 H.P. Kermath
Speed 18-20 M.P.H.
$7150.00

BANFIELD SEA SKIFF WORKS INC.

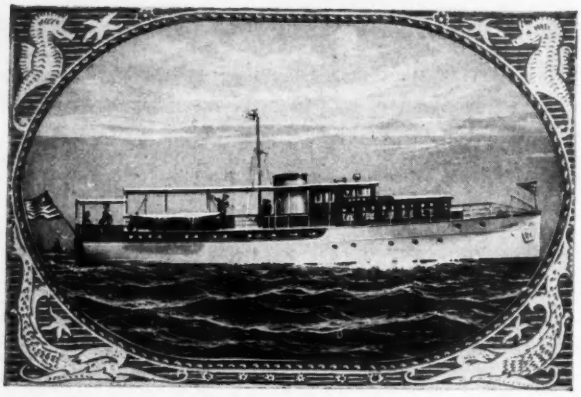
SALES OFFICES AND PERMANENT EXHIBIT
277 Park Ave. Bldg. - ENTRANCE 502 LEXINGTON AVE. - *New York City*
PLANT: ATLANTIC HIGHLANDS, NEW JERSEY
LARGEST BUILDERS OF SEA SKIFFS IN THE WORLD

Advertising index will be found on 3rd last page

BANFIELD "32"

On the wing, ahead of the fleet to where the flying fishes play. That's the Banfield "32", the World's Fastest Standardized Cruiser. While primarily a craft for deep sea sportsmen, the Banfield also excels as a family cruiser or express commuter . . . . Safety, seaworthiness, luxurious comfort and maximum speed blended as only Banfield knows how.

Literature on Request



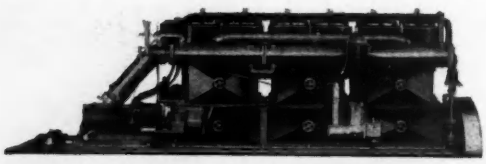
A Modern 76-ft. DIESEL CRUISER

Exceptionally large cruising radius at minimum cost

THIS yacht is the result of 30 years' designing and building experience plus the latest engineering features developed during 1928.

Every possible aid is at your finger tips. Electric toilets, electric refrigerator, electric pressure water system, and bridge control. Every convenience known on shipboard has been worked out for navigating, operating and comfort of owner and guests. There are two double and one single staterooms; 4 K. W. Generator; 110 Volt Battery.

Come and see the perfect ship built to standardized custom requirements Nothing like it exists. The same yacht may be had with gasoline engines and equipment to suit purchaser.



TWENTIETH CENTURY MARINE MOTORS are used to power our standardized boats. These power plants are built in our own shop in two models, four- and six-cylinder, 60 and 100 h.p.; our interest covers both the boat and its power plant.

NEW YORK
YACHT, LAUNCH & ENGINE
CO., Inc.

MORRIS HEIGHTS, NEW YORK CITY

Where to Buy Boats in New York

(*Continued from page 96*)

to handle fourteen persons. This boat is fitted with a choice of Hall-Scott or Packard engines up to 500 h. p. in size, will readily do up to a mile a minute without being forced.

Broadway, New York's famous thoroughfare, is noted not alone for the theatrical district, but also furnishes the main center of activity for the automobile industry from which it takes its name Automobile Row. In the very center of this zone, Gar Wood has placed his show room near 61st Street and can display several of his fine high speed runabouts to the gaze of the passers by. He has in the show room one of his Baby Gar 30's which when fitted with a 120 h. p. Chrysler, will do 32 miles. The faster boats which can also be seen include the Baby Gar 50 and 55 which are closely similar in external appearance but vary in power plant, the largest having a 500 h. p. engine which is able to drive the boat 55 miles per hour. Reports since this show room was opened indicate that there is a decided trend toward boating on the part of the casual passer by and that a well arranged show room on a prominent thoroughfare will do more than its share in attracting business.

The new Chris-Craft Salon at No. 1 West 52nd Street, at Fifth Avenue, occupies a site long hallowed in the eyes of the social world as the birthplace of New York's Four Hundred. Here it was, in years gone by, that the W. K. Vanderbilt mansion stood; Mrs. W. K. Vanderbilt, undoubted leader of New York society, held her balls and receptions here, an invitation to one of which was the most coveted mark of distinction that society could bestow. It is claimed that the term, the 400, originated on this spot, because Mrs. W. K. Vanderbilt's invitation list, governed by the size of the Vanderbilt ballroom, held only four hundred names. Be that as it may, the corner of 52nd Street and Fifth Avenue was for years the hub of the social life of the city.

The new building on the 52nd Street side of the Vanderbilt plot in which Chris-Craft will have its home, will be given over to the shops of those who cater to the sophisticated tastes of the social world. In the same building will be found Whitman, McGeachin & Company, world famous makers and importers of beautiful drapery fabrics. The Plaza Trust Company, one of the wealthiest banks in the world, will be a near neighbor of Chris-Craft, as will be De Pinna, exclusive haberdashers, and Hickson, noted women's tailors. Two of the city's smartest jewelers are also to be found in immediate vicinity—Cartier on one of the Fifth Avenue corners, and LeBolt's just down the street. Just a block away from the Chris-Craft Salon will be found the new site of the New York Metropolitan Opera House, John D. Rockefeller Jr.'s new project, which when completed will be one of the most complete and beautiful establishments of its kind in the world.

The name of Chris-Craft is probably the best known one in the motorboating field today. Builders of fine motor boats for over forty-three years, the Chris Smith and Sons Boat Company has a record of trophies won in all the important motor boat events at the world's most famous regattas that is distinctly enviable. Since 1914, Chris-Smith boats have captured practically all the trophies open to boats of their class, including the famous Harmsworth Trophy, won by Miss America I and II in 1925 and '26, when Miss America's speed of 80.5 miles an hour established a world's record.

In these new quarters, amidst surroundings equal to those of the finest automobile salons, Chris-Craft will present an unusually complete display. The first floor space and basement which Chris-Craft will occupy at No. 1 West 52nd Street will total some 7,000 square feet—enough to house twelve of the eighteen beautiful models of the Chris-Craft fleet. Those wishing to inspect and purchase a boat may come to this beautiful salon, with all the lesiure and convenience that would be attendant upon viewing a diamond at Cartier's or LeBolt's.

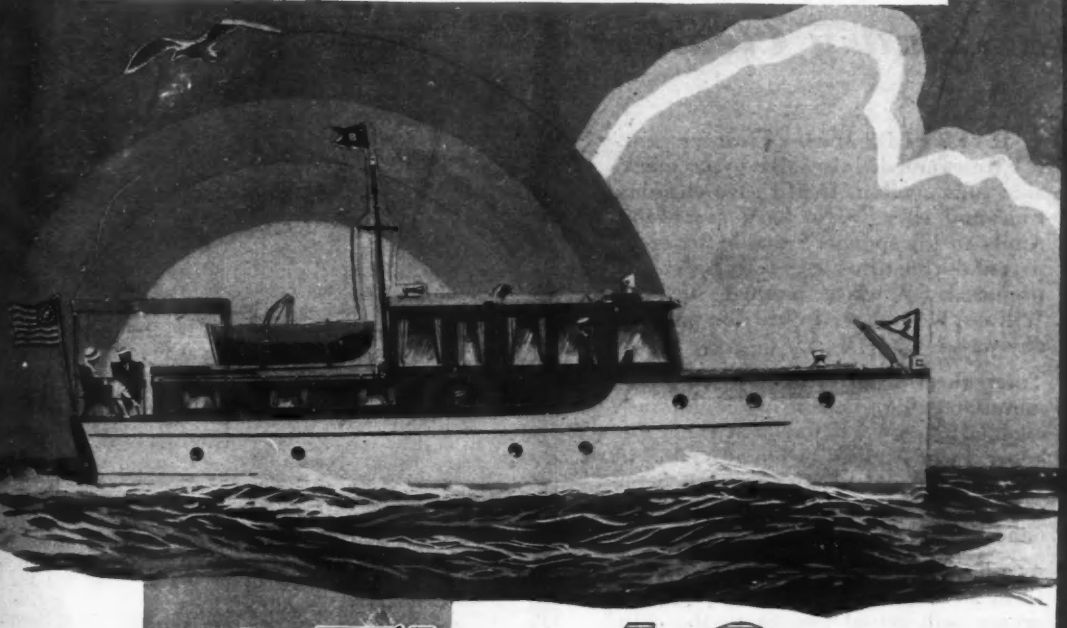
The plan followed by the Sea Sled Corporation combines show rooms with executive offices. In their extensive show room on Fourth Avenue at 19th Street, New York, will be found several of the different sizes of Sea Sled runabout ranging upwards in size from the new model 18 which is designed as an outboard powered express cruiser, and since it has a speed with two persons of 27 m. p. h., this claim is well founded. This boat can be had with or without a cabin top and when this is fitted it can be moved backwards or forwards so as to enclose the steersman's place. During inclement weather, and at other times, it can be moved aft to enclose the after portion of the boat. In real stormy weather, a canvas enclosure can be added which serves to completely enclose the entire spaces. This fine boat in addition to its speed, is also fitted with sleeping accommodations for two as well as a little galley, electric lights and other modern accessories. Some of the larger Sea Sled models with inboard engines are also shown at the show room and these follow more nearly the usual style of runabout

(*Continued on page 102*)

Advertising index will be found on 3rd last page

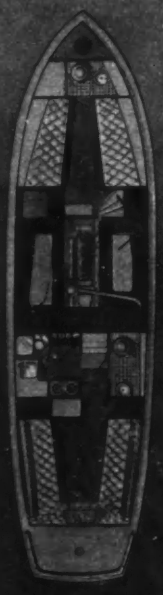
Now on display at Our New Show Room

153rd Street and Hudson River



Fleetwing 40

DE LUXE MODEL



The striking beauty of its lines, luxurious appointments and the sturdy finished excellence of its construction, make the Fleetwing Forty De Luxe the outstanding cruiser of the day. In its two choicely decorated cabins, its closed-in bridge deck, its airy after-deck, you will find more than room enough for the comfort of seven persons.

An exclusive Fleetwing feature, the spoon bottom construction, assures smooth riding in any weather. The power plant, a six cylinder Fleetwing Buda engine, gives speed of 12 to 14 miles per hour.

Fleetwing models range from 28 ft. to 75 ft.

Shipyards-

The Greenport Basin & Construction Co.
Salisbury Shipbuilding Co.
Thousand Island Marine Construction Co., Inc.

FLEETWING YACHT & SHIPBUILDING CORP.
FRANK V. BORICK, *President*
153rd Street and Hudson River New York City

For Every Part of Your Boat *Use This Sudsy Cleanser*

SILVER SUDS Marine Cleanser penetrates and dissolves dirt by a remarkable sudsy action. It will save cleaning time and energy. No hard scrubbing. Apply with a sponge. Suitable for every part of the boat, inside and out. Especially prepared for white painted surfaces. Will not scratch or injure the paint in any way.

Thirty-three years of experience in the manufacturing of cleansing compounds enabled us to offer to the yacht owner this general utility cleanser equally efficient for the cleaning of silver and delicate surfaces as it is for the cleaning and conditioning of painted surfaces.

As a hand soap, SILVER SUDS Marine Cleanser has no equal. It instantly removes grease with actual benefit to the skin.

Sold in 1, 5 and 10 gallon pails, or 1 gallon jars, 6 to the case.

Dealers and Distributors are wanted in all boating communities. Silver Suds Marine Cleanser yields a good profit. Sells readily and steadily repeats because of the satisfaction it gives. Write for prices and dealer discounts today.

SILVER SUDS MANUFACTURING CO.
829 N. 19th Street, Philadelphia, Pa. · Est. 1896
Sole manufacturers of
SILVER SUDS MARINE CLEANSER

SILVER SUDS
TRADE MARK
Marine Cleanser

SEND $1.50 FOR A TRIAL GALLON PAIL

Where to Buy Boats in New York

(*Continued from page* 100)

far as arrangement and other details are concerned.

The Pioneer in establishing motor boat show rooms in New York is the Elco Works of Bayonne, New Jersey. Port Elco, as it is generally known, was established quite a number of years ago and serves to house a permanent motor boat show of the products of this company right in the heart of the Grand Central Terminal Zone. The quarters are sufficiently roomy to permit of installing several of the popular cruising type boats which this company builds, and included among those on display will be found a little 26 foot Gray engined Elco cruiser, the ever popular 34 foot cruisette fitted with an Elco engine, the new 38 foot vee bottom cruiser and also one of the larger 50 foot boats can all be shown to full advantage without crowding. The frequent moving in and out of the boats is a big problem in show rooms of this kind, and the Elco Works found it necessary to construct a special form of glass door or show window which can be opened in its full size to permit of ready entrance for the boats when it is necessary to move them.

Also in the Grand Central Zone will be found the show room of the Banfield Sea Skiff Works on Lexington Avenue near Grand Central Palace. One of their popular 32 foot sea skiffs is shown in an attractively appointed show room. This serves also as the New York office for the builders whose plant is located at Atlantic Highlands, New Jersey. The boat is so arranged that visitors can step aboard and inspect it thoroughly with the least inconvenience possible. All of its good points can be readily explained and pointed out.

The outboard dealers have also found that it is advantageous to be able to show a completed boat to any interested prospects and several of these have located on prominent thoroughfares in New York. V. Withstandley and Company, Inc., distributors for the Airships series of outboard boats occupies spacious and modern quarters on Central Park West at Columbus Circle. He can show one of each of the several types of boats which he handles and also carries in stock outboard engines suitable for the several boats on hand. The Airships boats are built in 14 and 16 foot sizes and in a variety of sport runabouts or sedan runabouts as required.

In Flushing, Long Island, Bruno Beckhard holds forth on the water front and has the advantage of being able to show the boat both in and out of the water. The fact that an intending customer can inspect the boat to his heart's content and then step into a similar boat and make an actual trial trip with the boat in his own charge helps materially in effecting sales and demonstrates to the inexperienced how simple it is to operate a little boat particularly such as are outboard driven.

A new departure in boat display rooms is the plan of the Fleetwing Yacht and Shipbuilding Corporation to establish a large boat display room on the banks of the Hudson River at 152nd Street. In addition to affording sufficient space for display purposes, service facilities have been installed so that the problem of keeping boats in proper tune can be quickly accomplished by means of skillful mechanics who are familiar with the boat and engines on which they are working. The proximity to the water is also of decided advantage in that it reduces the distance which boats must be moved in order to place them in and out of a show room. No matter how well a boat may be constructed the matter of loading it on a truck is a difficult and severe strain for which the hull was never intended. By having a marine railway leading directly into the building, boats can be delivered from the builder's yards and hauled out directly in the show room with a minimum wear and tear on the hull. At this river front show room will be shown one of each of the several sizes of Fleetwing boats which are to be carried and the yachting tastes of all classes will be well provided for.

Haynes Griffin and Company in West 43rd Street, New York, distributors of Fairchild boats, have an abundance of display space where they can show these boats to advantage. In addition practically all of the better known boats and engines are carried and can be supplied directly from stock carried in New York.

E. J. Willis in downtown New York also carries a general selection of outboard boats, Caille, and other outboard engines as well as a most complete line of marine hardware of many kinds. The problem of placing the boats has been solved by arranging a display room on one of the upper floors of his building. Here a customer can stroll about and examine with a critical eye all of the many boats on hand and select the most suitable type for his purpose.

Still further downtown Bowler, Holmes and Hecker have maintained for many years a salesroom from which they have handled engines and mechanical equipment for countless boats in and around the metropolitan area. In addition to the Elto and Johnson outboard engines they are also distributors for the full line of Gray marine engines as well as other mechanical

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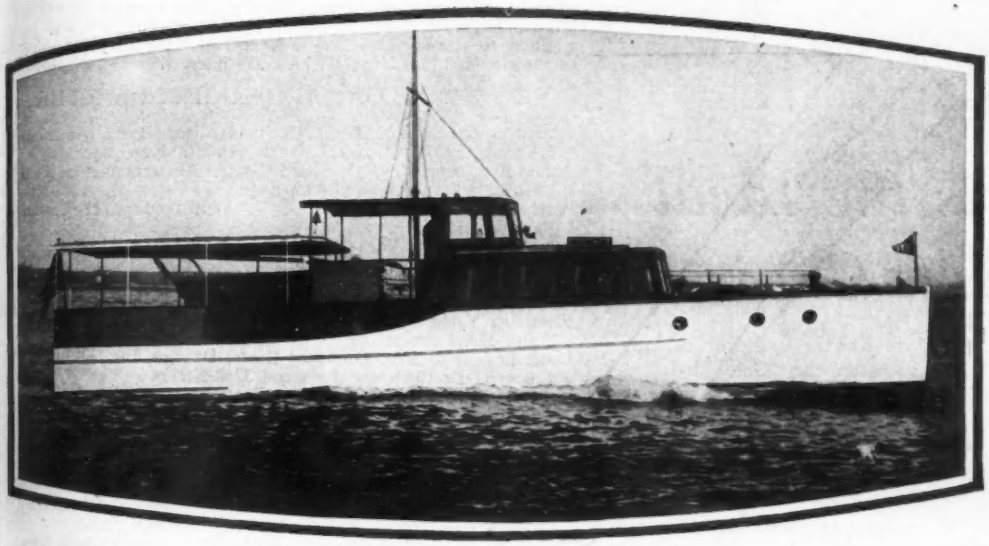
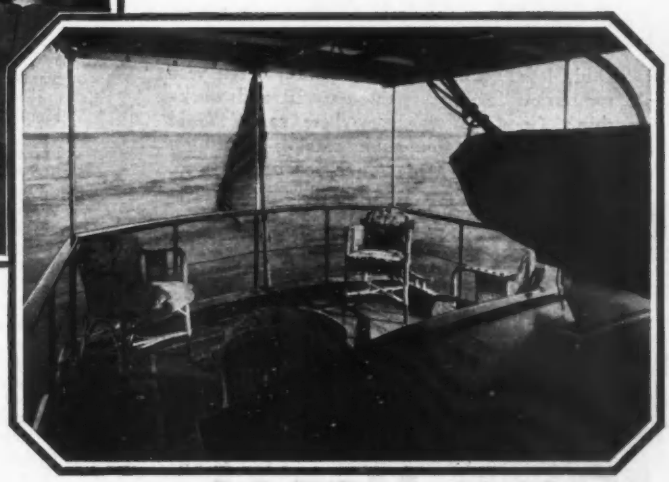
New Luerssen Cruiser—

— TWO MORE BUILDING —



This latest Luerssen-built Cruiser is 56′ long with a beam of 11′ 6″. Her accommodations include the owner's quarters, guest room, dining salon, tub and shower bath, galley and comfortable crew's quarters.



Powered with 2-110 H. P. Maybach engines, giving her a speed of 18 M. P. H., $32,500. Powered with 2-200 H. P. Sterling Petrels—22 M. P. H.—$34,500. Both prices include complete equipment and New York delivery. Write for blue prints and further particulars.

MAYBACH MOTORS ~ LUERSSEN YACHTS

F. W. VON MEISTER, GENERAL AGENT — 578 MADISON AVE., NEW YORK

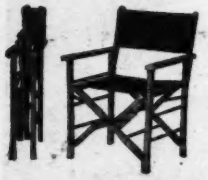
This is the Ideal Yacht Chair

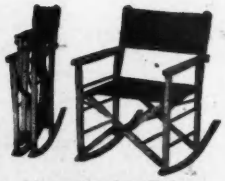
COMFORT and style for the yacht or cabin cruiser are combined in the "Gold Medal" Y-35 chair. It folds compactly into little space, and its weight is only 14 pounds. Silent rubber cushioned legs protect the polish of deck or salon floors. The brass hardware and heavy khaki canvas are not affected by weather extremes or sea water.

A rich, varnished mahogany finish harmonizes with the furnishings on deck or below. The Y-35 was designed expressly for your use aboard. Chinese Red—Persian Orange—French Blue and other colors to meet individual tastes are available on special order.

These bright hued chairs and the regular yacht model as well, are equally practical for home, club, summer cottage, porch or lawn use. In addition to these fine chairs "Gold Medal" manufactures a full line of folding cots, beds, chairs, stools, tables, tubs, etc.

"Gold Medal" products have a thirty-seven year old reputation for quality in material and workmanship. Good dealers everywhere carry "Gold Medal." Our new four-color catalog describing the improved "Gold Medal" line for yacht, club, home and camp use is ready. Write.


Companion Arm Chair
Plain or fancy colors.


Companion Arm Chair
with rockers, plain
and colors.

"GOLD MEDAL"
TRADE MARK REG. U.S. PAT. OFF.
FOLDING FURNITURE

Gold Medal Folding Furniture Co.

1764 PACKARD AVE. RACINE, WIS.

Where to Buy Boats in New York

(*Continued from page* 102)

accessories such as reverse gears, air compressors, water pumps and similar fitments.

Universal Watercraft is the name under which H. Mikkelsen, New York distributor of Universal marine engines, operates. His show room is also located in the downtown New York business district and he displays a full series of the Universal marine engines running through the entire line from 6-8 h. p. single cylinder to 15 h. p. Flexifour and 50 h. p. Superfour through the entire six and eight cylinder groupp with a maximum of 110 h. p. These engines are made in true right and left hand types for twin screw installation where necessary. In addition to the engines there will also be found other marine accessories and small boats which are interesting to examine.

NEW YORK BOAT AND ENGINE DEALERS

American Car & Foundry Co., Standardized Boats, American Car & Foundry Co., 217 West 57th St., New York

Acme Boat Company, Outboard Boats, Abercrombie & Fitch Co., Madison Ave. and 45th Street

Airships, Inc., Outboard Boats, V. Withstandley, 11 Central Park West

Banfield Sea Skiff Works, Sea Skiffs, Banfield Sea Skiff Works, 277 Park Ave. Building

Bessemer Marine Diesel Engines, Diesel Engines, Earl H. Croft, 25 West 43rd Street

Fleetwing Yacht Corporation, Standardized Boats, Hudson River and 152nd Street

Louis Bossert & Sons, Outboard Boats, Davega, Inc., all stores; Gimbel Brothers, 6th Ave. and 33rd Street

Boyd Martin Boat Co., Outboard Boats, E. J. Willis Company, 85 Chambers Street

Buda Motor Company, Marine Motors, Bowler, Holmes & Hecker, 259 Greenwich Street

Buffalo Gasolene Motor Co., Marine Motors, New York Office, 347 Madison Avenue

Caille Motor Company, Outboard Motors, Universal Watercraft, 44 Warren Street; E. J. Willis, 85 Chambers Street

Cape Cod Shipbuilding Corp., Standardized Small Boats, John Wanamaker, Broadway and 8th Street; Armstrong & Galbraith, Inc., 79 Barclay Street; Topping Brothers, 157 Varick Street

Chase Emerson Company, Outboard Boats, New York Office, 11 West 42nd Street

Chenevert & Company, Standardized Boats, Brewster Marine Sales Co., 11 West 42nd Street

Chrysler Sales Corp., Marine Motors, Chris Smith & Sons, 1 West 52nd Street; Gar Wood, Inc., 1860 Broadway; American Car & Foundry Co., 218 West 57th St.; Wilbur H. Young & Co., 250 West 57th Street; Garlock & Brewster, 11 West 42nd Street; Wheeler Shipyard, Foot of Harway Ave., Brooklyn; Howard W Lyon, Inc., 532 Lexington Avenue; Sea Sled Corporation, 226 4th Avenue

Chris Craft, Standardized Boats, Chris Smith & Sons, 1 West 52nd Street

Consolidated Shipbuilding Co., Boats and Engines, Morris Heights, New York

Cummins Engine Company, Diesel Engines, E. G. Griese, 551 Fifth Avenue; Smith Meeker Engineering Co., 123 Liberty Street

Cute Craft, Inc., Outboard Boats, Universal Watercraft, 44 Warren Street; Haynes Griffin, Inc., 41 West 43rd Street

Dart Boats, Inc., Standardized Boats, Armstrong & Galbraith, 79 Barclay St.; Wilbur H. Young, 250 West 57th Street

Dachel Carter Boat Company, Standardized Boats, Gardiner Marine Sales & Service, 17 State Street.

Dawn Boat Corporation, Standardized Boats, Clason Point.

Dodge Boat Corporation, Standardized Boats, 3 East 52nd Street

Dwight Lumber Company, Outboard Boats, Wilbur H. Young & Co., Inc., 250 West 57th Street

Elco Boat Works, Standardized Boats, Port Elco, 247 Park Avenue

Elto Outboard Motor Company, Outboard Engines, Bowler Holmes & Hecker, 259 Greenwich Street; Haynes Griffin Co., 41 West 43rd Street; Palmer Brothers, 89 Third Avenue; H. Mikkelsen, 44 Warren Street; Verrier Eddy Co. 201 East 12th Street; John Wanamaker, Broadway and 8th Street; Armstrong & Galbraith, Inc., 79 Barclay Street

E-Z Outboard Motor Conveyor, Outboard Motor Conveyors, Armstrong & Galbraith, Inc., 79 Barclay Street; Abercrombie & Fitch, Madison Avenue and 45th Street; Evinrude Motor Co., 115 East 23rd Street; C. C. Galbraith & Sons, 33 Warren Street

(*Continued on page* 106)

Advertising index will be found on 3rd last page

THE BIGGEST SHOW ON EARTH!

Right in the heart of New York City at Fifth Avenue and 15th Street is the biggest show on earth devoted exclusively to a permanent display of marine engines and motorboats. Thousands of square feet of floor space are given over to Kermath and Sterling Engines, Matthew 38's, Hacker Craft and last, but not least, the largest, most comfortable, low-priced, high quality 28 foot cruiser, the Richardson Cruisabout.

You should step into this marine wonderland where more than eighteen boats are on display and inspect the Cruisabouts. The "Master" and "Fore and Aft" Cabin Cruisabouts are ideal cruising ships or enjoyable, spacious, mobile summer homes. The "Day" Cruisabout with its 15 foot cockpit is just the boat for fishing, general utility and fast ferry service.

Drop in and see this magnificent display or let us send you the Richardson Cruisabout booklet which fully illustrates and describes the finest of the low-priced water craft.

BRUNS, KIMBALL AND COMPANY, INC.

Fifth Avenue and 15th Street, New York City

Telephone: Algonquin 0800, 0801, 0802, 0803, 0804, 0805, 0806, 0807.

Kermath & Sterling Engines *Matthews & Hacker Boats*

Richardson Cruisabouts

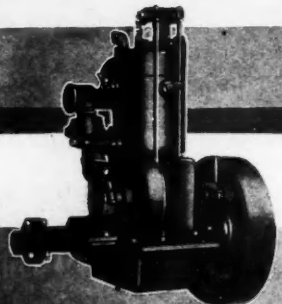
3 of the World's Best

10-15 H.P. "FALCON"

Through its absolutely vibrationless performance and light, compact design—the **Falcon** has won the distinction as the world's most ideal 15 H.P. motor for runabouts, auxiliary power, tenders and small cruisers.
Let us tell you—in our new **Falcon** catalog—about its oversize construction . . . full counterbalanced crankshaft . . . full pressure oiling system . . . and many remarkable records of performance which have earned the **Falcon** its outstanding popularity.

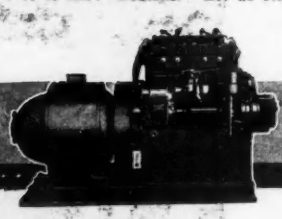
2 new "FALCONS" this summer

Let us also tell you about 2 new "Falcons"—a 40 H.P. "four" and a 50 H.P. "six"—which will be ready about July 1st.



DOMANS and BULLDOGS

For Work Boats, Oystering, Crabbing Shrimping, etc., there is not a more **dependable** medium or heavy duty motor built than the 5 to 10 H.P. "Bull Dogs" and the 7 to 60 H.P. "Domans." Let us send you all the facts.



Distinctly Marine

ELECTRIC PLANTS

Talk to any leading architect or boat builder—talk to any U. S. Electric Plant owner—talk to anyone who attended the 1929 New York Motor Boat Show—and you will understand why the U. S. "Super-Smooth" Line is entitled to its reputation as the **World's Best.** Let us send you full information on the most complete line of distinctly marine Electric Plants—ranging from 350 watts to 35 K.W.

38 YEARS OF SPECIALIZED MARINE ENGINE BUILDING

United States Motors Corp.

2 Nebraska St. Oshkosh, Wisconsin

Where to Buy Boats in New York

(*Continued from page* 104)

Evinrude Motor Company, Outboard Motors, Evinrude Motor Company, 115 East 23rd St.; Abercrombie & Fitch Co., Madison Avenue and 45th St.; Armstrong and Galbraith, Inc., 79 Barclay St.; Batterham Whitmey Co., 140 W. 42nd St.; Devega, Inc. All stores: Gimbel Bros., 33rd St. and 6th Ave.; Haynes-Griffin, Inc., 41 West 43rd St.; Low & Hughes Golf Shop, 56 W. 45th St.; H. Mikkelsen, 44 Warren St.; Sea Sled Corp., 226 Fourth Ave.; Sutter Brothers, 47 Great Jones St.; W. & J. Tiebout, 118 Chambers St.; Topping Brothers, Varick & VanDam Sts.; E. J. Willis Co., 85 Chambers St.; Victor Withstandley, 11 Central Park West; Wilbur H. Young & Co., Inc., 57th St. and Broadway; Alex Taylor Sporting Goods, 22 East 42nd St.; J. F. Blackaman & Son, 2745 Third Avenue; C. G. Galbraith & Son, 35 Warren St.; R. W. Zundel Co., 47 Whitehall St.; Holt Marine Engineering Corp., 611 West 125th St.; Verrier Eddy Co., 20 East 12th St.; Palmer Brothers Engines, Inc., 89 Third Ave.; Bronx Boat Works, southeast of Pelham Bay Park; F. Linden Bronx Motor Boat Club, Clason Point; Boat and Motor Sales, 7774 East Tremont Ave.; Bronx Motor Boat Co., 1786 Tremont Ave.; Consolidated Shipbuilding Corp., Morris Heights; H. R. Lange, 526 City Island Avenue.

Fairchild Boats, Inc., Outboard Boats, Gimbel Brothers, 6th Avenue and 33rd Street; Haynes Griffin, Inc., 41 West 43rd Street

Fay & Bower Engine Co., Marine Engines and Power Boats, Sutter Brothers, 47 Great Jones Street

Gray Marine Engine Company, Marine Engines, Bowler, Holmes & Hecker, 259 Greenwich Street

Gray & Prior Machine Company, Outboard Engines, Harold G. Graham, 3024 Kingsbridge Avenue; G. M. Malcolm Company, 25 Broadway

Hacker Boat Company, Standardized Boats, Bruns, Kimball & Company, 5th Avenue and 15th Street

Hall Scott Engine Company, Marine Engines, 217 West 57th Street

Herbst Boat Company, Outboard Boats, Wilbur F. Young, 25 West 57th Street

Gordon B. Hooton, Outboard Boats, Universal Watercraft, 44 Warren Street

Frederic P. Humphreys, Standardized Diesel Cruisers, 347 Madison Avenue

Johnson Motor Company, Outboard Motors, Abercrombie & Fitch, Madison Avenue and 45th Street; David T. Abercrombie Co., 311 Broadway; William E. Allard, Jr., 40 Edgewater Park, Bronx; American Car & Foundry Co., 217 West 57th Street; Armstrong & Galbraith, 79 Barclay Street; Automotive Elec. Serv. Corp., 106 West 63rd Street; Bowler, Holmes & Hecker Co., 259 Greenwich Street; H. & D. Folsom Arms Co., 314 Broadway; C. C. Galbraith & Son, 33 Warren Street; Gimbel Brothers, Broadway and 33rd Street; Haynes Griffin, 41 West 43rd Street; Howard Lyon, Inc., 532 Lexington Avenue; Ralph Oakley, 242 Dyckman Street; Sea Sled Corp., 226 Fourth Avenue; Alex Taylor & Co., 22 East 42nd Street; Topping Brothers, 191 Varick Street; Verrier Eddy Co., 201 East 12th Street; John Wanamaker, 784 Broadway; Brickners Auto Supply Co., 5073 Broadway; Consolidated Shipbuilding, Morris Heights; Richard Cox, 200th Street and Hudson River; Dawn Boat Corp., Clason Point; Von Lengerke & Detmolde, 349 Madison Avenue; Waterbury Battery & Ignition Co., 1250 Castlehill Avenue; E. J. Willis Co., 85 Chambers Street

D. N. Kelley & Son, Outboard Boats, H. Mikkelsen, 44 Warren Street

Kennebec Canoe Company, Outboard Boats, John Wanamaker, 784 Broadway; Bloomingdale's, 60th Street and Lexington Avenue; Universal Watercraft, 44 Warren Street

Kermath Engine Company, Marine Engines, Bruns, Kimball & Company, 5th Avenue and 15th Street

Laconia Car Company, Outboard Boats, Howard W. Lyon, Inc., 532 Lexington Avenue

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(*Continued on page* 156)

Haynes-Griffin Specializes in RADIO AND PHONOGRAPH

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THE installation of radio receiving sets and radio-victrola combination on private yachts is a specialty with Haynes-Griffin, Inc. We have made, probably, more satisfactory installations of this nature, than any other single organization.

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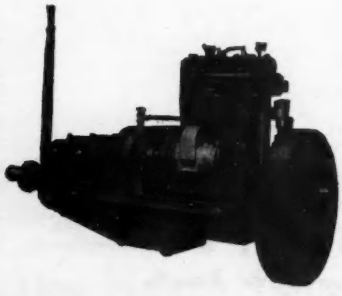
The double cylinder KK 7-8 h.p. shown below and the four cylinder model D 10-14 are widely used in sailing craft to 35 feet. In larger boats the AA 18-24 h.p. is popular. Low upkeep and long life are characteristics of all Red Wings.

12 sizes of THOROBREDS from 4 to 150 h.p. in 1. 2. 4, and 6 cylinders, both medium duty and high speed types described in our new 1929 catalog. This is yours for the asking. Mention type of boat when writing, please.

RED WING MOTOR CO.
RED WING, MINN.

The popular auxiliary engine, Model KK 7-8 h.p. with bore of 3¼", stroke 4¼". Furnished with or without reverse gear. Bosch magneto, detachable cylinder head and water cooled exhaust manifold are regular features.



To Twillingate for a Boat

(*Continued from page 36*)

say, there was no sun. The rain had stopped early in the morning, but the scene was indeed a dismal one. Leaden sea heaving up and down on all sides of us. No shore, not even a haze in the distance. Could our compass have been wrong, or our reckoning? Surely we should be sighting land by now. All we could do was hold on though, and that we did, assuming our corrections to be all right. We prepared a little breakfast and then called the sleeping beauties. After eating a bite, we gave them the course, telling them where to look for land. Then we dropped off to a much needed sleep again.

It must have been a couple of hours later when they awakened us with the news that land lay dead ahead. Whether there had been a cheer raised when they discovered it, on deck, I do not know, but I think Billy and I gave a few silent whoops to ourselves when we heard this. Just to make things a bit more tantalizing the wind now decided to swing. And swing it did for 180 degrees right dead against us. This left us a good fifteen mile beat before we could find out where we had brought up. And we were interested in that, you can believe.

When, at last, we were able to discern our position we found ourselves to be about a mile below the harbor we had headed for the previous evening. Now unlike most navigators, I'm going to lay that to luck rather than skill in navigating. For I think that's what it was. One helmsman held the wheel maybe ten degrees off the course one way and the next probably compensated the other way without knowing it, that's all. But our confidence began to return after this discovery, and we decided to put into harbor early in the afternoon in celebration of our first passage. A half-holiday was declared for the straightening out of gear aboard ship. We had come through without any sort of accident or trouble, on what we were later told was quite a bad night. You may believe that we were quite a happy bunch as we rode quietly at anchor in a little fiord-like harbor some hundred odd miles distant from our starting point of the day before. Hooping Harbor it was called but we couldn't see any reason for this because there was less hoop in it than in any others we've met up with.

The next day we pulled anchor from the solid rock bottom of our inlet, and ran down the coast to St. Anthony the farthest point north in Newfoundland. It was on this run that we ran in close to our friends the icebergs and photographed them. 'Twas also here that we ran into a school of friendly whales. The first one appeared no farther from the ship than fifty yards, and scared the crew to death. But before we could aim the camera at him he was sounding and when he reappeared he was too far to photograph. From St. Anthony, the Grenfell Mission station, we were to go through Belle Isle Straits, which separates Newfoundland from Labrador, and then head southwest down the Gulf of St. Lawrence.

But we never carried out our plan. Fate stepped in with raised hand. Our motor took the stage. We had paid so little attention to it all this time, I suppose it felt hurt. But it would not percolate. For five days we labored on her with the help of the Grenfell Mission's best mechanics and five nights we lay on our beds thinking up possible remedies. For now the motor was a necessity to further progress. But in the end the engine did just as well as originally—fire on one side. On the evening of the fifth day the head mechanic came to me with the sad story that he gave the thing up. It would have to be all taken down before the trouble could be gotten at, and probably that would mean new parts. We knew the impossibility of getting those parts, and of the long time in doing such a job. It was getting late—on into September. College would soon be open.

We tried to get a pilot for the difficult pass of Belle Isle who would see us safely out of the tricky channel. But canny fellows that they were—they said a motor was necessary so bad were the tides and fog. They wouldn't even risk their own necks if we took all the responsibility of the boat ourselves. Here indeed was a predicament.

We couldn't go on and we couldn't go back. For going back meant sailing her down outside Newfoundland, Nova Scotia and so on to New York. At which thing part of our crew balked. Obviously what we needed was a man who would accompany us down—who knew a little more, nay a lot more, than we did about sailing. We scoured our part of the island for such a man, but the opinion was that it was too much to undertake too far from home is what they really meant I believe. They love their little island, these folk.

September was slipping away from us as we followed these futile leads, one after the other. At last we could stay no longer and we got ready to abandon ship and return home by steamer. It was the most heart breaking thing I've ever done, and hurt me most to do—but reason and common sense said it was the only thing to do. Surely if the local fishermen were afraid to

(*Continued on page 110*)

Advertising index will be found on 3rd last page

WILBUR H. YOUNG & CO.

METROPOLITAN DISTRIBUTORS FOR

Herbst Outboard Boats

CONSISTENT WINNERS!—There is a Herbst Hydroplane model for every racing class—each a record breaker in its own division. Trophies are won and records established as a matter of course when you drive a Herbst. For the family, where safety and comfort are paramount, two fast models are offered—the 17-foot Viking and the 14-foot Viking Junior.

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9′ Junior A Hydroplane
10′6″ Special B Hydro
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DART RUNABOUTS

Show a clean wake to the rest of the fleet! Take the wheel of a Dart runabout and learn why Dart has set new standards of runabout perfection. Its ease of control, thrilling speed, and extra comfort will prove a revelation. Three models offer a complete range from which to select—an open 22½-footer, and a 26 and 30-footer in either open or sedan type. Speeds up to 40 M.P.H.

SEAGOER

Cruiser accommodations, runabout speed, and commuter reliability in one 28-foot hull. The versatility of the 1929 Seagoer Cruiser makes it equally as well adapted to the needs of daily commuting service and day cruising with the family. No detail has been overlooked to provide facilities and conveniences for every purpose. Normally powered with a Gray motor to give speeds between 13 and 22 M.P.H., 32 miles are possible with optional power plants.

DEE-WITE

An outboard-powered family runabout which rivals in performance, beauty and luxury the big expensive inboard craft. With the outboard motor neatly concealed in an afterdeck compartment speeds up to 35 miles are at your command. Construction is of genuine African mahogany with double planked bottom, and beauty of line and finish is such as only Dee Wite master craftsmen can produce.

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Picture yourself literally flying across the surface of the water at breath-taking speed on an outboard-driven aquaplane! The Skiboard makes it possible. Non-sinkable and non-capsizable, it furnishes thrills aplenty with no element of hazard. Any make or type of outboard engine will drive it, and, with motor rigidly attached, the speeding craft is easily guided by shifting the weight of the body.

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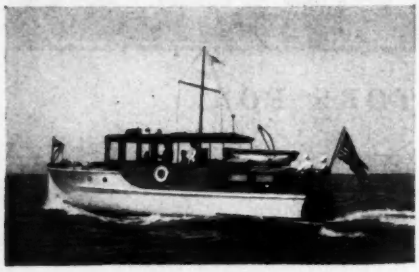

Twin Screw "45"

Several Now Building for Early Summer Delivery

THIS boat is offered to yachtsmen as an outstanding example of the very finest type of sturdy Great Lakes Cruiser. Its design incorporates the advantages of large beam for riding stability, generous bow flare for dryness in rough and choppy seas, spacious deck room, extra large forward and after cabins, with spring-filled mattresses on all eight berths, twin screw power for greater dependability and a fifteen mile driving speed, lockers, toilets, fine galley, ice chest, full running equipment with copper screening throughout. Numerous other features are embodied in the design that compare with the very finest stock cruisers built. Because we have no dealer organization we find it possible to offer this handsome guaranteed cruiser at this outstanding price.

We urge an inspection of these cruisers built to standardized design in our own shops. A trip to Benton Harbor is suggested but we will gladly send more complete information to you on request.

Powered with 85 H.P. Kermaths

DACHEL-CARTER BOAT COMPANY

Benton Harbor, Michigan

To Twillingate for a Boat

(*Continued from page* 108)

try it we should be afraid. Oh but the battles that little cabin felt before we finally decided to do it. And so one night a week later we slipped quietly out of St. Anthony harbor with our faces all turned toward the little Maybelle waiting patiently there at anchor for our return.

It wasn't our return that she awaited—had she but known it. For when I reached New York I found a friend who would go and get her for me. And so she stayed with anchors out until he trod her deck, hoisted again her sails and faced her out of the harbor toward New York. He and his crew were sailors and down the coasts they came. Past St. Johns to Halifax. On down by Maine and across to Cape Cod and slowly up past Long Island until at last New York loomed before them. It is my only regret that I could not have been with them as they marched down the latitudes.

Well, home at last from wandering on a foreign strand, and the prize was here with us. We had had some glorious adventures, some trials and a few tribulations. But it had all been unforgetable. Best of all though, a dream had been fulfilled. And when a dream is lived they say there is contentment. But I don't know, I think I feel it wearing off, for I am not content—yet. I want to learn all there is to know about a boat like mine. I want to know and understand her so that we may work together like a smooth running machine. I want to take her to the far off places of the earth when this is done. And isn't it so with us all? And that, my friends, is why I went to Newfoundland last summer.

AUTHOR'S NOTE:—The following story was taken almost exactly from the log of the boat on her trip down, supplemented by descriptions which Alexander Troonin gave himself. It contains only the high point of this cruise, and is added with the belief that it may prove an interesting sidelight on winter cruising in a small boat.

THE TRIP DOWN

About the only thing he had in his favor was—the boat. The boat was a thoroughbred. Everything else was against him. The wind doubled against him, and the waves picked up their mountainous tops to defy him. In short, he was in the tail end of a hurricane. Night descended upon him and the place was the Bay of Fundy. The month was December. The boat was a fifty foot schooner without motor. The crew consisted of one man and three sailors. Three paid hands, and they were praying on the cabin floor. Outside in the blackness of the night the man brought her through the storm alone. A four hour battle he fought with wind and wave while the seas battered at the cabin hatch. Any moment the sailors cringing below expected to see the water burst in, helpless. How Alexander Troonin brought the schooner through is a story of seamanship rarely heard today. He is one of the old school of sailors, this man.

To go back to the beginning. The boat was en route from St. Johns, Newfoundland to the United States where she was to be turned over to her owner. It seemed very desirable to bring her down in the Fall, and it was the middle of November before a start was made from St. Anthony. As is often the case at that time of year the going was both hard and tedious. Favorable winds were not many along the coast, and when they came you couldn't trust them. There had been delays all the way along, and it was December first before they cleared from Halifax. This is a story of that part of the trip between there and Portland, Maine. After they put out from Halifax they laid a course WSW and sailed serenely along before a single reef breeze. Their course lay past Cape Sable, and it was there that they got their first taste of cold weather. The thermometer dropped one night to 14 degrees. Going became bad due to the ice. After clearing the Cape they swung her about and took a course for Portland, about WNW by the compass.

The treacherous Bay of Fundy lay before them, but a fair wind pushed them easily along and there seemed to be nothing to apprehend. The wind was easterly and it looked as though it would hold for twelve hours, at least. Aboard, beside the captain were three professional sailors, men of the sea for many years, whom he had signed on at Halifax. This was their old stamping-ground, the Bay of Fundy. They went about their duties in the customary way, one man holding the wheel while he shivered just a little with the cold; another busy below in the galley preparing some supper; and the third assisting on deck clad in his heavy woolen jacket. For the wind was piercing and although the thermometer had risen it was not above 28 degrees yet. The captain was studying a chart, practically learning it by heart, so that he need not look at it again while at the wheel. He glanced at the barometer—it was dropping. On deck the steersman was calling—it was beginning to blow. A glance through the port hole showed that to the captain.

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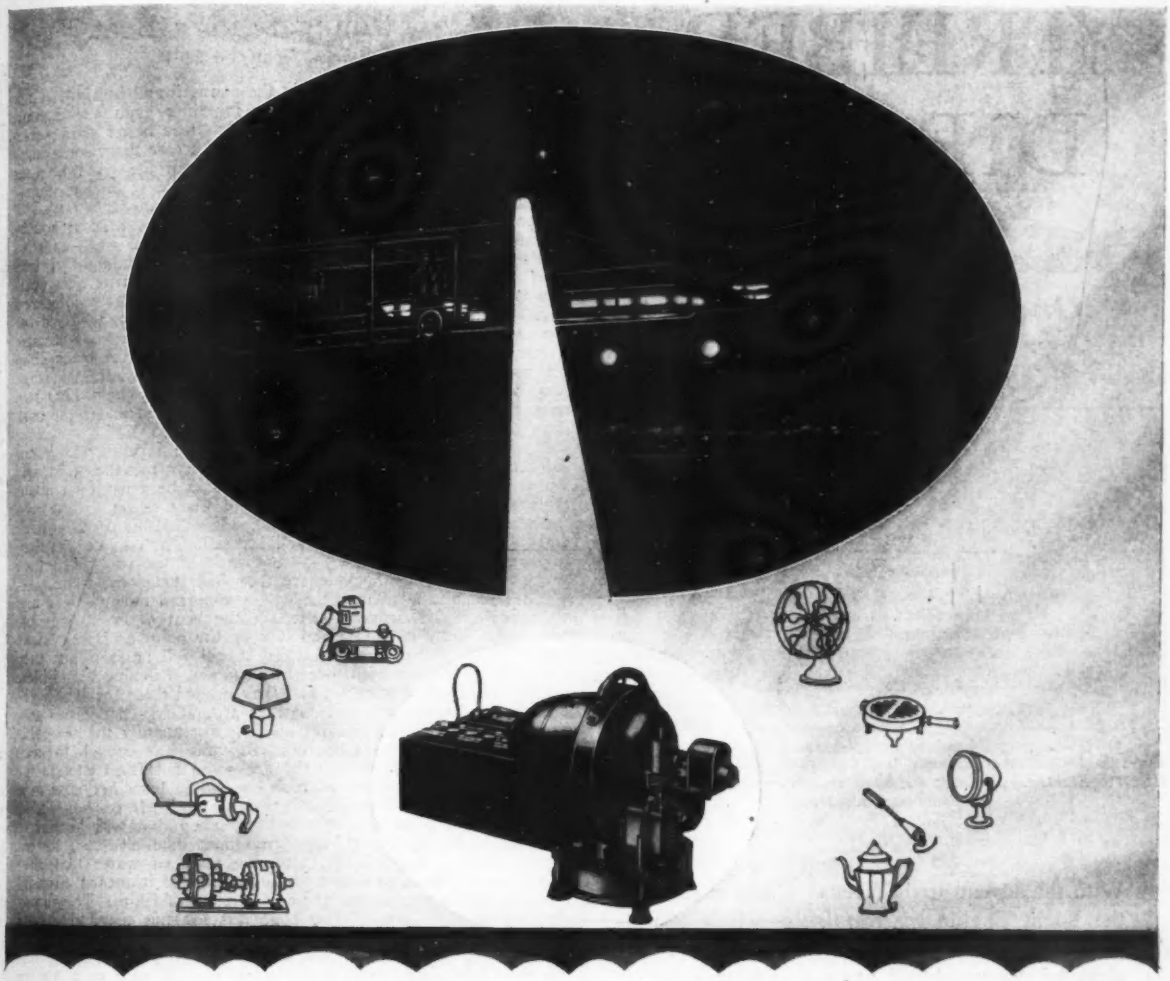

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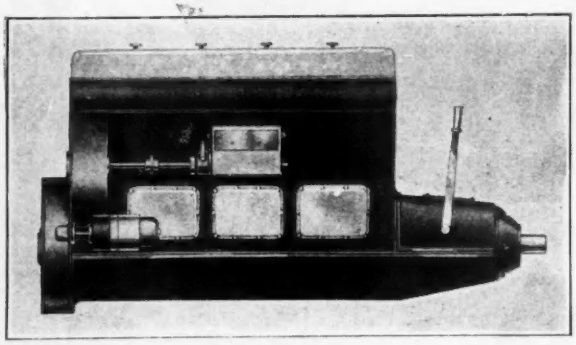

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The Treiber Bulletins fully descriptive of this progressively different Yacht Diesel will be gladly mailed upon request. Treiber sizes regularly range from 65 to 3000 H.P., with larger sizes specially designed and built to meet practically any H.P. or service requirement.

TREIBER
DIESEL ENGINE CORP.
Dept. M. B. **Camden, N. J.**

To Twillingate for a Boat

(*Continued from page* 110)

Going on deck they put a reef in the mainsail and foresail. Then darkness fell and they went below for their grub, the captain taking the wheel. They were logging a little better than seven knots now, by his computation. Now lay before them some hundred and fifty miles of open sea, and with the wind holding they should make land some time during the following morning. But the wind was fickle that memorable night.

About ten o'clock it began to change. It went from south-east to south; from south to south-west; from south-west to west; and from there into the northwest. At midnight it was dead agains the little schooner. As if content with its new position it started to blow up in real earnest. Whitecaps appeared near the ship, and the tops of the waves were soon whipped off into flying foam. And then because it was shallow, and because it was Fundy, the swells began to roll in on them. A mean chop set up. Progress against this combination of wind and wave was next to impossible. The boat just barely held her own now, although it was difficult to gauge her speed under the conditions.

Now they were forced to double reef the foresail and mainsail and take in entirely the staysail. On came the wind and worse grew the sea until the captain saw he must turn about and run before it. He would lose all his westing, but it was necessary to prevent being swamped. He called his crew on deck and they furled both mainsail and foresail. The only canvas they left up was a strip perhaps a foot wide of the jib. Then they were scudding away back where they had just come from.

With the pitch darkness the waves appeared mountainous, and the wind seemed bent on stripping the boat of every movable part. The dinky got loose and was on the point of sailing away bodily, when one of the men spied it and fell on it. Then they renewed the lashing with three inch manila. Running lights blew out as fast as they were lit, and they needed them for they were crossing the steamer lanes. Getting around was dangerous too, as the decks were continually awash. Fortunately the temperature had come up to 32 degrees. But this was enough to keep the rigging frozen, although the decks did not form enough ice to speak of. In her forward rush she would bury her nose in a smother of foam, then lift it letting it race aft on her decks. There the green water met the nasty chop that was beginning to come over the stern. The little boat couldn't seem to lift herself in time to clear the towering mass of water that shot under her transom, and she took huge gulps of it aboard. Smash! and the solid water struck the cabin hatch 'midships. The flimsy doors seemed to shake. The boat was logging ten and a half knots now. And no sails.

Midnight. The captain was alone on the deck. One by one his men had gone below until there was no sign of a human before him. From one port shone a feeble glow of flickering light, that was all. He was alone at the wheel of his ship; by himself to battle with the elements. Back and forth he spun the wheel keeping her ever before it. He knew full well what responsibility was his to keep her from yawing. Half an hour went by. An hour. He yelled to his men. No answer. Every wave seemed to crash into the flimsy hatch all the harder, and if that carried away he knew she would fill, and nothing could save them then. The pumps would be worse than useless against such a sea. Once he saw a pale face at the port. He waved his arms to it, but it disappeared. And then above the roar of the wind and the pounding of the sea, he heard voices, prayers, entreaties, supplications. His men below were suffering the torments of the damned. They were men waiting for death. He guessed what they were thinking but he would not let himself think it, out there in the black. If the hatch held, they would live, he felt. For that was surely the weakest part of her. Little had her builder dreamed of such seas coming aboard in such a protected place. But there it was pounding, driving and trying to break through one inch and a quarter of oak into a dry warm cabin below.

The decks had been cleared two hours before. One wave had picked the water barrel from its lashings and carried it away overboard. Wood boxes and gear of all sorts had gone over the rail. The cockpit was two feet deep in water and the deck a foot. The scuppers couldn't carry the water off fast enough. Bits of rope and pieces of wood oddly enough, stayed aboard and drifted around the decks. It was a lonely and hopeless vigil; everything seemed against him. How the captain stuck to his post, he does not know. Each wave came literally over his back and down onto the deck. He sat huddled on the wheel box with his legs hooked under the mooring bitts, and his arms twined about the wheel. He shuddered as each deluge came. Would the next be the last? It was a time to make a man think, and perhaps make him appreciate life a little more.

At times the shadow of the binnacle was visible before him

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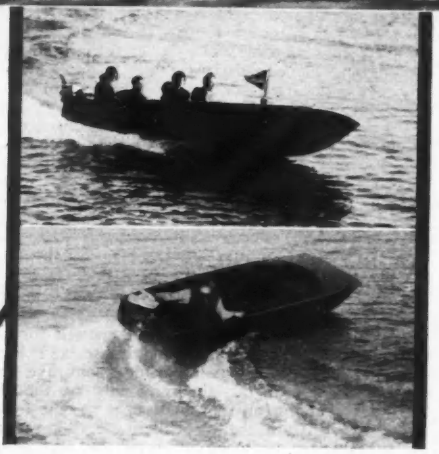
NEXT DOOR TO FLYING



A New Beauty

MODEL 18, the Outboard Express Cruiser, is a long hitch ahead on any possible competition. There is nothing in the whole outboard fleet which can compare. She will do 27 miles an hour with two in the cockpit. And these are stop watch clocked miles—not just "mouth miles." She has a smart, adjustable, demountable cabin which makes a weather-tight union with the windshield or slides easily aft to leave the cockpit free. She sleeps two comfortably, has cushions, toilet, kitchenette, self bailer, electric running lights and complete high grade equipment. If you try to pair her on capacity and accommodations you'll have a long way to go up on price.

A Famous Fast Runabout

For those who haven't the occasion or the use for one of the larger Sea Sleds, or who are provident enough to want a big Sea Sled for company occasions and a little one to bat around in on their own, or run errands, Model 16 furnishes a very swagger fast outboard runabout. She has long flush decks and double cockpits seating four comfortably. Her handsome forward steering wheel carries throttle control and ignition cut-off switch. In addition she is equipped with windshield, electric running lights, water-tight bulkhead, cushions, horn, fire-extinguisher, paddle and all requisites for an immediate trip. Taking into consideration her dominant seaworthiness, she is the best looking and most serviceable craft at anywhere near her price.

Sturdy Little Model 13

But for the family at large and the kids, Model 13 is the most competent, fast, safe outboard afloat. She is not a flimsy racing shell, although she won the two most spectacular long ocean races of the year, and will do from 20—30 miles an hour easily according to the power.

The Sea Sled fleet has one common characteristic. Nothing afloat has to stand for the same amount of hard knocks. The same engineering and the same fidelity of workmanship are just as necessary for the smallest Sea Sled as for the largest. As a result you find Sea Sleds still going, staunch, seaworthy and fast, long after lighter or more carelessly built craft have gone to the ocean boneyard.

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To Twillingate for a Boat

(Continued from page 112)

projecting out of the water six or eight inches. In the next instant it would be submerged. Most of all the captain wanted something hot to drink, something to stimulate his lagging circulation. With this he felt he could go on. He called out again during a lull. But he could stir no one from below. He shivered, shuddered from the cold. Another degree colder and he felt he too must freeze as the rigging had done. Even now the scuppers seemed to be filled with ice for no water was leaving the decks. He did not dare leave the wheel to go to the hatch to rouse the men. It was one of those times when a man has to call out every ounce of will power and strength in him to hang on. But he did.

And so through the fury of the storm he held the wheel, and brought the tiny schooner out of the worst of it. Gradually the wind abated and the whine in the rigging lowered its pitch. Now she was riding them better, and no longer was she dipping both bow and stern into the black and white water. Watching his chance the captain left the wheel and rushed to the hatch yelling loudly for one of his men to come on deck. Then hastily he went back to the wheel. After a while a pale face appeared at the drawn hatch. It looked as though it had just crawled up out of the grave, and wanted to return. And in truth so it nearly was. The sickly light from below added to the illusion. He was told to rustle a mug-up as fast as he could, and he disappeared again with that lost vacant stare. Time enough taken for ten mug-ups when he finally appeared. He couldn't imagine, I suppose, why anyone would want food at such a time. And so the captain came to the end of his four hour and thirty minute battle. He put the ghost at the wheel and gave his instructions. He lit the binnacle, and watched the man take the course. He was doubtful as to the fellow's ability after such a strain, but he seemed to know what he was about. Satisfied, he turned to go below, and in the east he saw the traces of the dawn. What a night it had been!

On the pile of coal bags beside the galley lay his second man in a state of coma. He spoke to him and shook him, but got no answer. His mind was completely apart from his body. Whether he was conscious or not the captain had no way of knowing, he could neither talk nor indicate he was being talked to. The other man was kneeling on the cabin floor, his arms upraised. He was in prayer, his lips now mumbling an incoherent jumble of words. He followed the captain with his eyes, wide staring eyes, not of this world either. He was ordered up but he was too weak to stand on his feet. He had to be helped into his bunk, as did the other man. The captain himself went to the galley.

It isn't often that we see men so close to death and live to see them afterward. These sailors had followed the sea the whole of their lifetimes. They were men between thirty-five and fifty years of age. And yet. . .

Before long it became light enough for them to pick up the shore. They spotted a lighthouse and located their position. They ran into a small harbor about five miles down the coast and there rode out the remainder of the storm. When it was quiet enough for the small boat to put over it contained three men with all their belongings. They were jumping ship. Whether or not they gave up the sea for good and all would be indeed an interesting question. And so it was with a new crew that the captain again carried on two days later after all had been made shipshape aboard. This time they made the crossing in good order and without mishap sailed into Portland harbor. This time though it had been cold, and when they anchored it was with decks six inches deep in ice.

Perhaps it was the happiest moment of the captain's life when he turned the boat over to her owner. There indeed was a great task well done. Too great praise cannot be given to such a sailor. There are too few of them alive today. And to the Newfoundland builder who created such a fine craft should praise be given. And the more I hear about this trip the more I am convinced of my great fortune in having such a combination of man and boat. Otherwise I am afraid, things would not be as they are today. And there would be another of those little notices in the post offices of the Nova Scotia villages telling of the schooner lost with all hands in addition to the many they already had after this particular storm.

GERMANY TO STAGE REGATTA AT POTSDAM

June 1 and 2 are the dates selected for the international regatta to be held this year at Potsdam, Germany.

Several international events have been arranged and particular attention is called to the outboard classes in which opportunity is afforded to take part in six different contests.

Advertising index will be found on 3rd last page

"My bridge . . . Your cockpit"

Thus on the Dawn 45 is found one of the few truly equitable marital compromises.

On the big shaded bridge deck, guests always respond to the luxurious comfort. And the hostess too is at her best. Proud of her marine home with every convenience at her command, she dispenses real hospitality.

Meanwhile, the husbands hold their Isaac Walton convention in the cockpit. They lounge in easy chairs between bites, swapping yarns and alibis. When the strike comes there is ample room to play a fish and they are near enough to the water for good easy landing.

Entertaining on this yacht, either at anchor or on a cruise is enjoyable . . . for everyone is comfortable. Large berths, toilet facilities in all three airy cabins, ample closet room, a real galley, all contribute.

Let us tell you the story of the Dawn 45. It is in printed form and will be sent upon your request.

Afloat at Clason Point
Powered by twin Lathrops

DAWN BOAT CORPORATION
CLASON POINT NEW YORK CITY
Westchester 7000 Established 1906

DAWN 45

And now *Chris-Craft*

joins the imposing fleet of boats equipped with

SANDS
MARINE PLUMBING

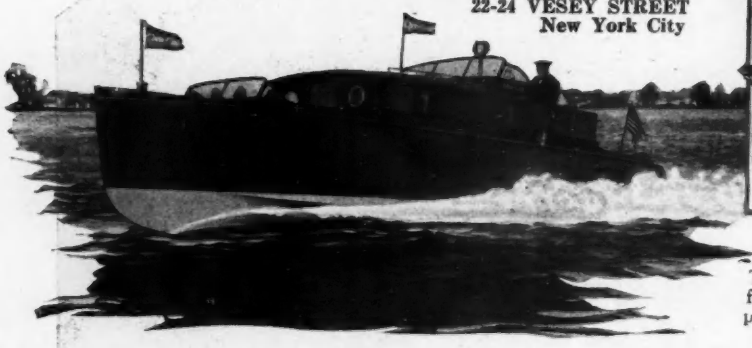
SANDS Ultra-Quality Fixtures have been selected as standard equipment for practically all the finest stock cruisers, including ELCO, HERRESHOFF, LUDERS, A.C.F., RED BANK, RICHARDSON, HUMPHREY'S, CHANCE-MARINE AND OTHER PROMINENT BUILDERS.

The name of ***"SANDS"*** on plumbing fixtures increases the selling value of any boat, new or old.

"Quality Fixtures for Quality Boats"

A. B. SANDS & SON CO.

22-24 VESEY STREET
New York City



Sands "Speedit" Pump Closet, a compact light-weight fixture specially designed for express cruisers and fast commuters. Weighs only 42 lbs. Can be furnished with colored seat, colored bowl or colored pump. *Write for catalog of other fixtures.*

The selection of ***Sands Plumbing Fixtures*** for ***"Chris-Craft"*** is an indication of the high production standards of these popular cruisers

AMERICAN MOTOR BOAT RECORDS

(*Continued from page* 18)

Mile Trials, Free for All

Cute Craft Herself, owned by A. T. Buffinton, at Albany, N. Y., July 6, 1928. Built by Cute Craft Corp., Evinrude engine. Speed, 37.749 statute.

C-U-Later, owned by M. Roy Brady, at Detroit, Mich., on September 4, 1928. Built by Brady Boat Co., Evinrude engine. Speed, 29.4 nautical, 33.854 statute.

2 Mile Free for All

Fraser's Bullet, owned by H. M. Fraser, at Tampa, Florida, November 29, 1928. Built by Boyd Martin, Johnson engine. Speed, 34.952 m.p.h.

2½ Mile Free for All

Firefly III, owned by Chas. Holt, at San Diego, California, October 14, 1928. Built by Fred Ashbridge, Wilmington, California, Evinrude engine. Speed, 36.09.

3 Mile Free for All

Baby Whale, owned by W. Hockenjos, Jr., at Greenwood Lake, N. Y., July 5, 1928. Built by D. N. Kelley & Sons, Evinrude engine. Speed, 32.6.

4 Mile Free for All

Rubber Baby II, owned by E. Pickard at Wilmington, N. C., October 5, 1928. Built by Herbst Boat Co., Johnson engine. Speed, 35.55 m.p.h.

5 Mile Free for All

Bonnie Lass, owned by J. Bigson and driven by F. Pierce, San Diego, California, December 16, 1928. Built by J. F. Graham, Evinrude engine. Speed, 38.58 m.p.h.

6 Mile Free for All

Century Kid, owned by Jim Welch, at Oshkosh, Wisconsin, July 15, 1928. Built by Century Co., Johnson engine. Speed, 33.645.

10 Mile Free for All

Blue Streak II, owned by L. Baughan, driven by H. G. Ferguson, at San Diego, California, December 16, 1928. Built by Holt, Evinrude engine. Speed, 38.59 m.p.h.

Class D—Mile Trials
Division II

Fraser's Bullet, owned by Harrison Fraser at Miami Beach, Florida, March 23, 1929. Built by Boyd Martin, Johnson engine. Speed, 43.76 m.p.h.

2½ Mile Free for All

Miss Bell Air, owned by George P. Bailey at Charlevoix, Michigan, August 5, 1928. Built by Brady Boat Co., Elto engine. Speed, 35.019.

4 Mile Amateur

Orange Blossom, owned by R. Harrington at Wilmington, N. C., October 5, 1928. Built by Century, Elto engine. Speed, 37.02 m.p.h.

5 Mile Amateur

Spirit of Peoria, owned by E. Travis at Muscatine, Iowa, October 14, 1928. Built by Boyd Martin Boat Co., Elto engine. Speed, 39.48 m.p.h.

4 Mile Free for All

Orange Blossom, owned by R. Harrington at Wilmington, N. C., October 5, 1928. Built by Century, Elto engine. Speed, 37.02 m.p.h.

5 Mile Free for All

Blue Streak, owned by H. G. Ferguson, at Lake Elsinore, California, December 8, 1928. Built by Holt, Evinrude engine. Speed, 37.92 m.p.h.

6 Mile Free for All

Bullett, owned by Bill Higgins at Danville, Illinois, September 16, 1928. Built by Boyd-Martin, Elto engine. Speed, 37.306 m.p.h.

Mile Trials, Free for All

OB 294, owned by E. W. Travis at Peoria, Illinois, September 30, 1928. Built by Boyd-Martin, Elto engine. Speed, 41.748 m.p.h.

25 Mile Free for All

Oh My, owned by Ralph Preganzer at Peoria, Illinois, on September 30, 1928. Built by Century Boat Company, Elto engine. Speed, 36.261 m.p.h.

Class E
Mile Trials, Amateur

Baby Whale XIII, owned by H. R. Maddocks at Worcester, Mass., May 29, 1928. Built by D. N. Kelley & Son. Johnson engine. Speed, 35.022 statute.

Mile Trials, Free for All

Muriel, owned by Bill Doak at Detroit, Michigan, September 4, 1928. Built by Bill Doak, Johnson engine. Speed, 22.515 nautical, 25.926 statute.

4 Mile Free for All

Uniplex, owned by W. M. Frey at Wilmington, N. C., October 5, 1928. Built by Century Boat Co., Elto engine. Speed, 36.71 m.p.h.

Advertising index will be found on 3rd last page

Artistic Steel Floats
Floating Breakwaters
Floating Patios for Entertaining

ALL PATENTS APPLIED FOR

ARTISTIC Steel Floats are built on sound engineering principles. They are practical, convenient and durable. We exert every effort to make our floats BETTER, rather than cheaper. We cater only to those who can afford the best. They are ideal for Yacht Clubs, public or private landings. See our exhibit in the window of the A. C. F. show room, 217 W. 57th St., N. Y. C.

We build floats with any number of slips, or without slips, to suit your purpose. Why use an improvised float, if you can afford a good one?

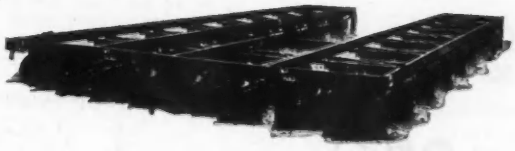
To be assured of prompt spring delivery, place your order now. We will build you a float of which you will be justly proud. Our canopy covered slip drive floats are a beautiful sight on the water.

Don't overlook our Floating Breakwaters. We guarantee that they will calm the roughest of waters. Our Breakwaters are expensive, but they do the work. Let our Marine Engineer explain them to you. Our standard model is built in sections of 30 foot lengths. Each section weighs 18 tons. They have a heavy steel bulkhead built down from the frame nearly to the bottom at low tide.

We have opened a New York office in the Mansfield Hotel, 12 W. 44th St., Tel. Vanderbilt 2233. Call our Mr. Walsh there for an engagement. He and our Marine Engineer will help you to solve your problems.

Double Slip Standard Steel Float

Single Slip Standard Steel Float



Single Slip Standard Steel Float showing drums and channels assembled, ready for sectional flooring.

Owners of from 40′ to 60′ cruisers, on Long Island Sound, are requested to look at the float we are building for Thompson Ross, Kings Point, Great Neck, L. I. You are also requested to see the float we are building for Columbia Yacht Club, on the Hudson River.

A FLOAT AS GOOD AS YOUR BOAT

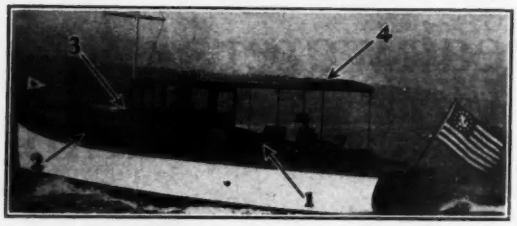
WALSH-BUGBEE COMPANY, Inc.

Engineers, Manufacturers and Builders, Artistic Steel Floats and Docks

NEW YORK OFFICE
Mansfield Hotel, 12 W. 44th St.
Telephone Vanderbilt 2233

MAIN OFFICE
206 Hanover St., Trenton, N. J.
Telephone Trenton 6257-8

FOUR POINTERS FOR YOUR BOAT



1—RUSSIALOID
(Reg. U. S. Pat. Off.)
The ideal artificial leather for boat cushions. Supplied in a wide range of colors and grains.

2—VEHISOTE
(Reg. U. S. Pat. Off.)
An excellent insulating and weatherproof panelling. Ideal for cabin joiner work and will take a high, natural wood finish.

3—PANTASOTE
(Reg. U. S. Pat. Off.)
A fire resisting, double texture, leather substitute unexcelled for long wear and unaffected by change in climatic conditions.

4—TEXTASOTE
(Reg. U. S. Pat. Off.)
Admittedly the leader for awnings, spray hoods, weather cloths and waterproof covers. Obtainable in many color combinations.

Let us send you samples

THE PANTASOTE COMPANY, Inc.
250 Park Ave. at 46th St. New York, N. Y.

NOW READY

Outboard Rules for 1929

and

How to Run an Outboard Regatta

Price 25 cents

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959—8th Avenue, N. Y. City

B. Schellenberg & Sons

EVERYTHING FOR THE PERSON OF THE YACHTSMAN, HIS OFFICERS AND HIS CREW

Clubs, yacht owners, commercial boat owners should take advantage of our almost 70 years' experience in outfitting the mariner, both inland and deep sea.

Crews and Club attendants furnished without Charge

B. SCHELLENBERG & SONS
Established in 1857
99 to 105 Myrtle Avenue
(Near Bridge Street), Brooklyn, N. Y.
Telephone: Cumberland 0804

Racing Classics in 1929

(*Continued from page* 14)

capped according to the technical measurement rules of the American Power Boat Association while the conditions for the Hunt Trophy call for handicapping this race on a past performance basis. Accordingly, some fortunate cruiser stands as a possible winner for both of these famous trophies provided he is sufficiently careful in his navigation, and skillful in the handling of his boat. The date for this race has been selected as July 27th and the course for the race will be from Execution Rocks, Long Island Sound, to and around a buoy south of Stratford Middle Ground, returning thence to the entrance to Lloyd's Harbor and finishing in that delightful place. The plans include a jollification after the conclusion of the race and agreeable visitations among the boats on the following day before it will be necessary to return to home ports.

Another cruiser event which will call upon the skill of the yachtsman will be the Block Island Race of the New York Athletic Club on July 13th. This race also is scheduled to rastt from the western end of Long Island Sound and finish in the west harbor of Block Island, a distance of exactly 100 nautical miles. The problem of navigating a boat in this race is made more interesting by the fact that starting at noon, it will require from ten to twelve hours time to complete the course, making it necessary to navigate across the expanse of Block Island Sound after nightfall and find the entrance to the Block harbor in darkness.

BRITISH INTERNATIONAL TROPHY RACE

Detroit on September 1st and 2nd, will again be the scene of an attempt on the part of English sportsmen represented by Miss M. B. Carstairs, to wrest from Gar Wood the premier speed laurels of the world. The British International Trophy has been challenged for and Miss Carstairs is again bringing over an English boat for this race. At this time it is a little uncertain as to whether Canada and possibly one other European country will also take part but should these other nations also send a competitor to Detroit, it seems likely that a most interesting international race will develop. As in earlier years the Detroit regatta will not be lacking in events for other classes. Any who have followed the racing in this center of activity know that a full program of races for every class and division will be provided during the regatta.

PRESIDENT'S CUP REGATTA

Washington, D. C., will again make its bid for racing prominence in the regatta scheduled for September 13th and 14th of which the principal feature will again be the race for the President's Cup. As usual, this will be one event on a lengthy program involving other classes and it seems quite probable that a class for the new Gold Cup hydroplanes will be scheduled and afford interesting competition.

Miles River, Maryland, will also conduct its usual regatta during the middle of August on the 16th and 17th. Any who have ever taken part in one of these regattas will remember the hospitality of the Miles River Club and the excellent program of racing which they put on. This year's contests should be better than any previous ones since there are an increasing number of new boats available to take part in the races.

Novel Auxiliary Equipment

(*Continued from page* 57)

main propeller shaft and permits the auxilary to operate the main propeller shaft.

Aside from the safety feature of this auxiliary installation it offers a means of trolling from a snail's pace up to seven or eight miles per hour quietly and economically.

It is also claimed that the auxiliary can be used very advantageously for maneuvering in tight places. The auxiliary also comes in very handy in case of a shortage of gas, as it is very economical on fuel consumption and will drive the boat to port on a much smaller amount of gas than required by the large main power plant.

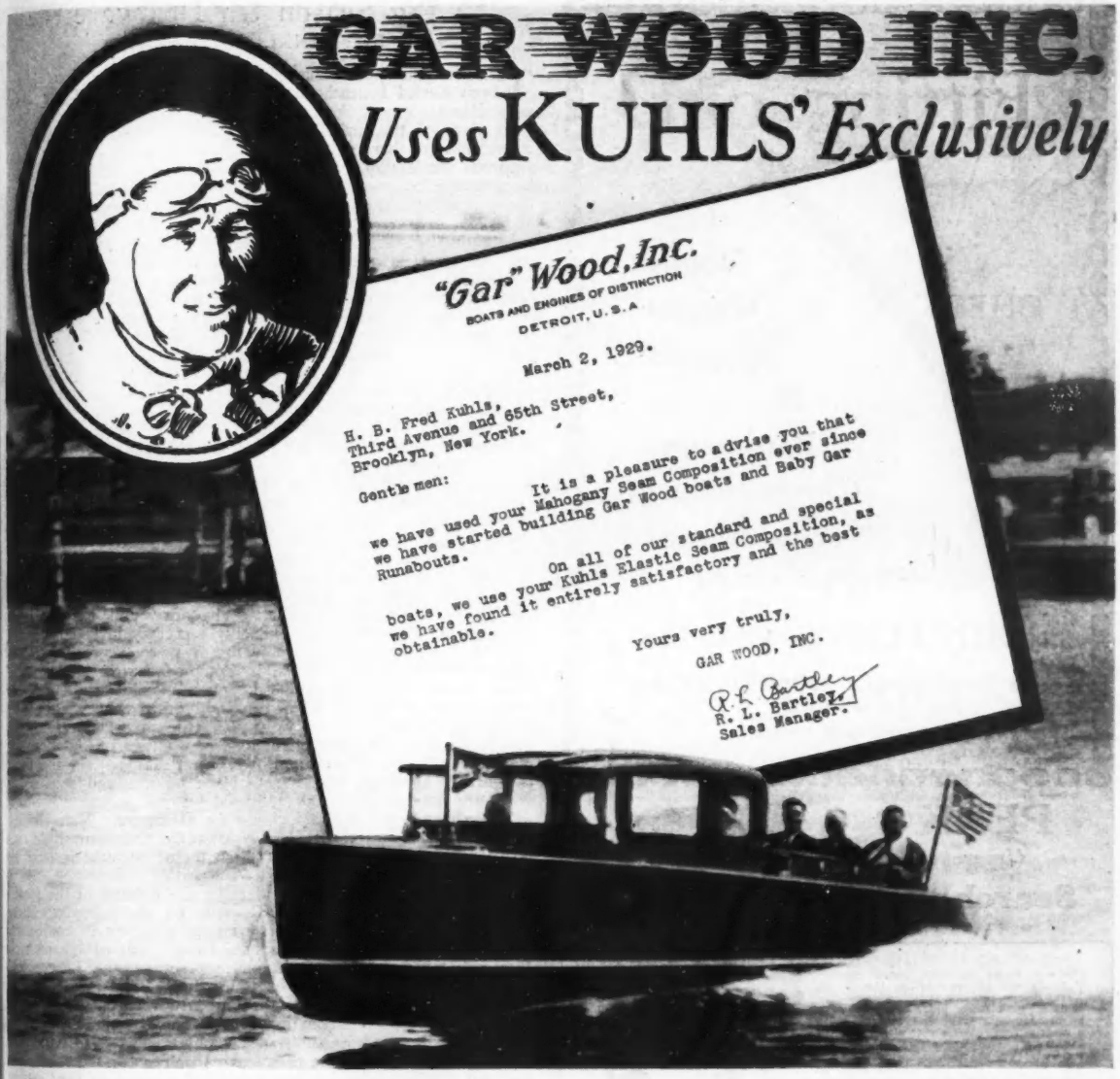
A. R. KNAUER JOINS ROBINSON MARINE

Information is received to the effect that A. R. Knauer has become associated with the Robinson Marine Construction Company of Benton Harbor, Michigan.

Prospects for the coming season are unusually bright at the Robinson Plant, as a volume of orders has already been received that will extend their production facilities to the limit.

Advertising index will be found on 3rd last page

GAR WOOD INC.
Uses KUHLS' Exclusively



"Gar" Wood, Inc.
BOATS AND ENGINES OF DISTINCTION
DETROIT, U. S. A.

March 2, 1929.

H. B. Fred Kuhls,
Third Avenue and 65th Street,
Brooklyn, New York.

Gentlemen:

It is a pleasure to advise you that we have used your Mahogany Seam Composition ever since we have started building Gar Wood boats and Baby Gar Runabouts.

On all of our standard and special boats, we use your Kuhls Elastic Seam Composition, as we have found it entirely satisfactory and the best obtainable.

Yours very truly,
GAR WOOD, INC.
R. L. Bartley
R. L. Bartley
Sales Manager.

NO other man in the world has had more actual experience as owner, driver and builder of speed boats than Gar Wood, the speed king of the water. Consequently no greater endorsement could be given Kuhls' Elastic Seam Compositions than the above tribute from Gar Wood, Inc.

Kuhls' Elastic Seam Composition is made in three grades—each for a particular purpose. *Use*

No. 1
for deck seams

No. 2
for hull seams

No. 3
for laying canvas on decks, housing and hatches. Also for canvasing and repairing canoes.

SEAMS caulked with Kuhls' Elastic Seam Compositions require less attention than any other part of the boat. They remain absolutely watertight for eight to twelve years. Kuhls' never becomes brittle. It sets semi-hard and retains its original elasticity indefinitely.

H. B. FRED KUHLS

Sole Manufacturers—Established 1889

SIXTY-FIFTH STREET and THIRD AVE. BROOKLYN, N. Y.

Elastic Flat Yacht White — *Elastic Gloss Yacht White* — *Elastic Trowel Cement* — *Elastic Deck Varnish*

ELASTIC TRADE MARK SEAM COMPOSITION

Fitting out?

CHECK

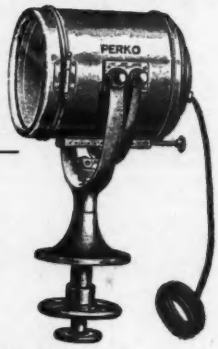
Logs
Books
Charts
Sextants
Binoculars
Barometers
Chronometers
Thermometers

REPAIR SPECIALISTS

JOHN BLISS & CO., Inc.
83 Pearl Street, New York City

Catalog upon request

PERKO
(Improved)
Searchlights



The new Perko improved electric Searchlight follows in construction the U. S. Naval design for long distance projection. It is of extra heavy brass construction on a cast bronze fitting, and is fitted with a glass mirror reflector that eliminates the danger of corrosion, assuring maximum service at all times with low voltage and high power. The searchlights may be furnished for either deck or cabin control.

WRITE FOR BOOKLET NO. 46
Let "PERKO" be your guarantee.

PERKINS MARINE LAMP CO.
1942 Pitkin Ave. Brooklyn, N. Y.

ZUNDEL CO. INC.

ZUNDEL

Headquarters for Motor Boat Supplies
Get Our Prices on
MUSHROOM MOORINGS,
ANCHORS and MOORING CHAIN

Do your spring buying at Zundel's. Write today for latest catalog.

Brass Skene Bulwark Chocks. Cable cannot jump chocks. 1¼" rail size $5.25 per pair.

R. W. ZUNDEL CO., INC.
1 Block from South Ferry
47 Whitehall St.—2 Front Street—New York

Big Season On Delaware

By FRANKLIN H. BATES

THE old hatchet is rusty and moss-covered, so long has it been buried beneath the mud-covered bottom of the Delaware River.

In place of the turbulent and trying debates and disputes of a decade ago, there is the solemn serenity, unified effort, and a vigorous leadership, which has carried the Delaware River Yachtmen's League into the enviable position of being one of the leading sporting groups in any line of sport in America today

Into the League fold have come all elements of the yachting fold of the Delaware. There are no dissenters.

The League has 15 active cooperating member clubs. It holds regattas, provides the trophies and pays for them from its treasury. It provides funds by certain winter time activities, and the publication of its annual Year Book. It has gained the cooperation and confidence of every yachtsman. The League is starting upon its fifteenth season, with the best schedule, and brightest prospects in its history. It is unique in the section of the American Power Boat Association.

Formed in 1914 by six clubs, Trenton, Columbia, Camden, Wissinoming, Farragut and Riverside, it has grown steadily. All of those six are still active members, and others joining have been Bridesburg, Forest Hills, Delaware River Y. C., Keystone, Westville, Tri State, Anchor, West End of Chester, and Delaware River Outboard Motorboat Association.

One of the founders was Frederick von Nieda, with the representation of the Farragut Sportsmen's Association of Camden as his credentials. He was elected as the first secretary of the League. He was a good secretary. So good in fact that the League discovered the fact. The answer is easy. He is still secretary, the first, last and only secretary in its history.

Now Commodore Cartledge, who for many years was President of the D. R. Y. R. A., is Commodore of the Delaware River Yacht Club, one of the League's member clubs, and his counsels are earnestly listened to and desired by the League. Also now Commodore Billy Freitag, the present president of the D. R. Y. R. A., is Commodore of another of the League's member clubs, the Westville Power Boat Association, and there is scarcely a League meeting that the advices and opinions of Billy are not requested and followed.

There is a big season ahead for the Delaware. Naturally the outboards have increased activity generally, and many little outboard races are scheduled in addition to the regattas fostered by the League, under the A. P. B. A. sanction.

Whether the League will undertake the holding of the second annual Philadelphia Outboard Regatta, on the Schuylkill River June 28 and 29, is still, at this writing, a matter of conjecture. Financial problems are keeping the League out of it, and until they are taken care of from another source, the League will not touch it, though requested to by the Philadelphia Chamber of Commerce, the father of the outboard regatta.

That regatta is of national importance, since Sir Thomas Lipton has donated a handsome trophy, reported to cost more than $7,000, as one of the permanent trophies for the event. The national rowing course on the Schuylkill proved an ideal setting last year, and attracted more than 100 leading outboards, and about 30,000 spectators.

A shift in the opening date of the League schedule was necessitated by the Outboard regatta, however, and the season formally gets under way June 22. Of course several clubs have spring outboard series. Delaware River Y. C. will hold five or six such races on successive Saturdays, opening May 25, and West End B. C. of Chester may open earlier.

However, the League schedule, as approved, follows:

June 22—Triangular class regatta for all kinds of motorboats, outboards, speedboats, joint auspices Wissinoming, Bridesburg and Columbia clubs.

June 29—Philadelphia Outboard Regatta on Schuylkill.

July 14—Delaware River cruiser Championship, Keystone Y. C., Tacony.

July 20—West End and Tri State outboard and speedboat regatta, at Chester, Penna.

July 27—Class regatta, Westville and Riverside, start and finish at Westville, N. J.

August 3-10—Chesapeake Bay cruise of Riverside Y. C., with cooperation of League.

August 17—Triangular class regatta, Farragut, Camden and Forest Hills clubs, start and finish at Farragut.

August 24—Annual class race to Trenton, starting at Wissinoming Y. C. Same afternoon anniversary water carnival, speedboat and outboard regatta at Trenton, N. J., with cooperation of City of Trenton.

(*Continued on page* 122)

Advertising index will be found on 3rd last page

There's plenty of room in the new Baby Gar "30"

TWO'S COMPANY

with Baby Gar—but three's no crowd. Eleven people may dispose themselves comfortably in the luxurious cockpits of even the smallest of Baby Gars.

And when we say "comfortably"—that's what we mean. For experts agree that "Baby Gar" is the softest riding, DRIEST runabout that's built. Idling through limpid waters, planing at half or two-thirds speed, or flashing with open throttle over summer seas, you'll discover the most entrancing sport in all the world. We suggest, however, that you test these statements for yourself. The Gar Wood dealer in your community will enjoy showing you what Baby Gar will do. And if you do not know this gentleman, send us a note today and we'll put you in touch with him.

Baby Gar "30"—30-32 m.p.h.	$2,950-$3,550
Baby Gar "40"—40-42 m.p.h.	$4,500-$5,350
Baby Gar "50"—48-50 m.p.h.	$8,950
Baby Gar "55"—53-55 m.p.h.	$10,950

DEALERS: A material expansion in Gar Wood representation is now under way. Those who can represent a distinguished product to a distinguished clientele are invited to investigate this profit opportunity.

GAR WOOD *Inc.*

THE GREATEST NAME IN MOTORBOATING

429 Connecticut Avenue, Detroit, Michigan

1862 Broadway at 61st St., New York City

Safeguarding Valuable Property

Mooring Equipment must be properly designed and honestly constructed. Assure yourself of these qualities in your own ground tackle by selecting it from our comprehensive stock.

We should be glad to help with suggestions, and will mail, on request, an instructive booklet on the subject.

W. & J. TIEBOUT
NEW YORK
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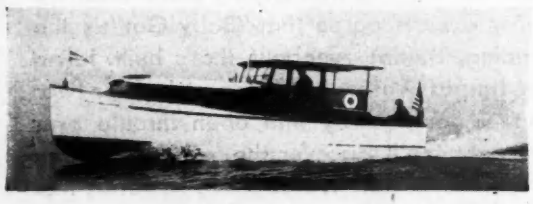


32-foot* WHEELER *SUPER PLAYMATE
—a beautiful SPORT CRUISER—
for YOU and YOUR FAMILY

THIS smart, specially-designed 32-foot Cruiser is particularly adapted to deep sea fishing, extensive summer cruising and speedy commuting. Speed 16 to 28 miles. Snug, trim and luxuriously appointed. Built with special regard for seaworthiness and safety.

PRICES: $5850 to $6850

We build a complete line of Cruisers from 21 to 40 feet in length, in all desirable cabin appointments. Every boat guaranteed as to high quality of material and craftsmanship. You are cordially invited to visit our Plant. Demonstrations by appointment. Write for Catalog A.

WHEELER SHIPYARD
Coney Island Creek & Harway Avenue
BROOKLYN, NEW YORK
Tel.: Bensonhurst 5091 and 8550

Big Season on the Delaware

(*Continued from page* 120)

August 31—Keystone Y. C. speedboat regatta at Tacony

September 8—Interclub cruiser and cabin boat championships, Anchor Y. C., of Bristol, Pa.

September 14—Speedboat regatta, Riverside and Westville, starting and finish at Essington on special course.

September 15—Camden Y. C. trophy cruiser race, Riverside Y. C., start and finish at Essington.

That schedule by no means tells the story of activity this year on the Delaware River. The Tri-State Y. C. hopes to boost still further its Chesapeake Bay headquarters on Worton's Creek, and plans a weekly series of one-design sailing races there, in addition to an active year on the Delaware.

City of Trenton officials are leaving it up to the Trenton Y. C. to provide plenty of water doings and activities, for the series of celebrations which the city is planning to mark the anniversary of the founding of that city.

Anchor Y. C. is completely remodeling its club-house at Bristol, and has torn out the inside and is putting in new flooring, removing the lockers to another building, and refurnishing the club. More members have been added during the past winter than in any year since the war. It expects to go into commission for a busy year by May 1. The club will be represented in many races this year by the cruiser Laureda, owned by Captain Winters, who is converting the craft into a bridge deck cruiser, and installing a 50 h.p. Standard engine in her. She formerly belonged to the late Commodore A. A. Jordan of Keystone Y. C.

Delaware River Y. C., at Torresdale, is launching into a big season, with opening day May 25, and a spring outboard series opening that day, and continuing throughout June. Commodore A. B. Cartledge has just been re-elected Commodore at the April meeting. The club has driven new pilings to replace damaged ones, and anticipates a big year. It has a new express cruiser on its roll, in Spitfire, owned by Eugene P. Bachmann. She formerly was property of Earl Van Sciver. The club is also helping to take care of University of Pennsylvania crews, now rowing on the Delaware, owing to lack of water in the Schuylkill River.

Keystone Y. C. of Tacony anticipates a big year, with two feature races, the cruiser championship July 14, and a big speedboat regatta August 31.

Wissinoming Y. C., Columbia Y. C., and Bridesburg Y. C., the three sister clubs, have enjoyed wonderful winter seasons, and are uniting their efforts in a triangular regatta, which they anticipate will mean much. Last year, Bridesburg won the trophy for having the most boats race in the entire season's races. She expects to repeat.

Farragut, Forest Hills, and Camden Yacht Clubs, the three active Camden bodies, are all entering what they feel is a big season, and are rapidly getting their boats into commission.

Riverside Y. C. is again emphasizing its Chesapeake Bay cruise, in early August, and also the Camden trophy cruiser race at the close of the season. It has just constructed a new wharf, and sees a big season, with Ed Schmitt as Commodore once again.

At Tri-State, J. Howard Van Sciver has just been elected Commodore to succeed Charles Walber, and Earl Van Sciver was elected Rear Commodore. Each has ordered a new 75-foot boat, to cost around $50,000, from an Annapolis, Md., builder, and expects delivery at a double launching in mid-May. Each will be active in the speedboat racing game this year, Howard again with his Chris-craft, Miss Tri-State, and Earl is buying a speedboat.

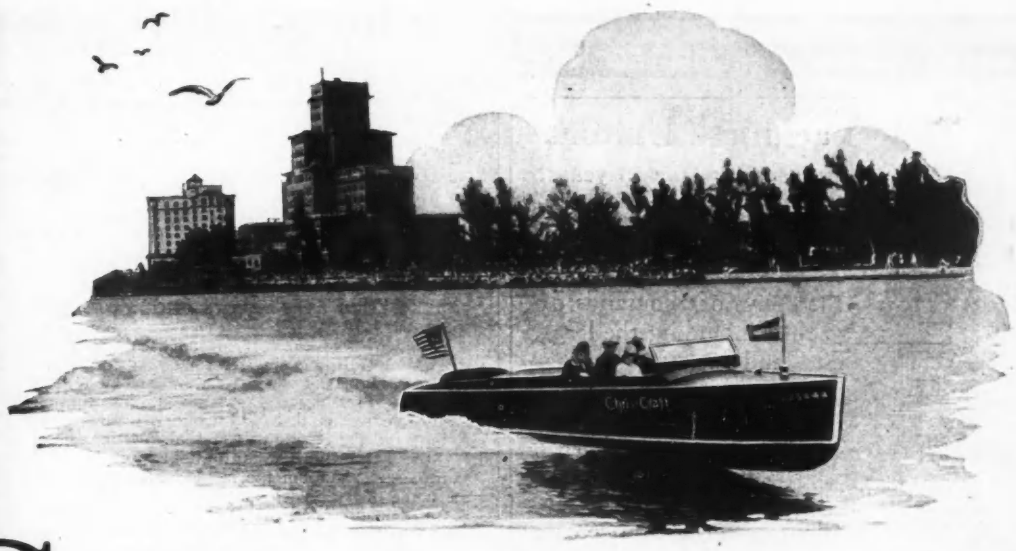
At Westville, Commodore Billy Freitag is buying a new speedboat, to be called Baby Gar IV., to be powered with a Chrysler engine. He will race her in addition to his displacement racer, Freda III. The club has been exceedingly active, and looks for a big season.

The West End B. C. of Chester has roused itself from more than a decade of inactivity, and is ready for much action. The Commodore is E. G. Edwards, an active outboard enthusiast. An all-summer outboard series is being planned by the club.

Among the clubs not included in the League ranks, the Yachtsmen's Club is planning its annual ocean race again, and is considering a course of Essington to Ocean City for the event. The Corinthian Yacht Club has a series of one-design International Star Class races planned, as well as a spring cruise to the Chesapeake. The Riverton Yacht Club has a sailing campaign planned. And the Philadelphia Yacht Club hopes to re-enter the racing field.

When all minds work together, in unison, the result is bound to be success, whether it be business, politics, religion or yachting.

Advertising index will be found on 3rd last page



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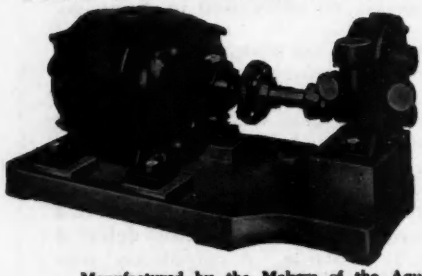

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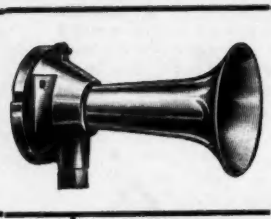

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NEW YORK CITY

Have a Look at Our Bathroom

By HERBERT MILDRUM

PEA-GREEN bath tubs, marble lavatories and gold-plated faucets, once associated only with the 200-foot yachts of multimillionaires, have boarded the one-man cruiser. We are living in an era of grandiose bathrooms. In most modern residences it has remained for the plebeian plumber to create the show place of the house. In the old days it was "come and see my parlor;" but in this topsy-turvy age the up-to-date hostess greets us with the salutation, "come and see my bathroom."

That chaste whiteness, once considered as essential for the bathroom as black is for a funeral, is now more or less taboo—color effects created by artists of international reputation now are demanded. Fixtures formerly looked upon merely as utilities of convenience have acquired artistic possibilities of the first magnitude.

Designed in aesthetic form and decorated in rainbow tints the residential bathroom has blossomed so gorgeously that soon the Saturday night rite which we were content to observe with sober propriety in kitchen tubs of unostentatious tin, may be performed in bizarre salons that will make the famous baths of ancient Rome look like Newtown Creek at low tide.

Quite naturally it was to be expected that the bathroom's exalted importance in the home would ultimately be reflected in the home owner's yacht or cruiser. If madam's home bathroom is tinted in lavender and spring green her guests will of course expect to find the same exclusive color effects on madam's boat. If said visitors have been tubbed and showered through gold-plated fixtures in ultra-sanitary vitreous china one can hardly expect them to be happy with a sponge bath on shipboard. Portly and important guests cannot with politeness be jammed into tightly triangled compartments away up forward when they have been accustomed to roomy baths where space, even to swing the proverbial cat, is plentiful—it just can't be done.

More and more is the bathroom becoming an influence in the purchase and sale of a boat. In seasons past the lines of the hull, the motor and the sleeping quarters received primary consideration. But now the lady must see the bathroom first, and if it isn't done in horizon blue or autumn brown, with complete fixtures to match, there is trouble for the salesman.

No longer are boats designed with the thought of tucking a toilet room away in such space as may be left after the engine, the berths and the galley have been taken care of. No longer does the discriminating skippr limit his plumbing fixtures to a lavatory and a water closet. Gone are the days when the painter could finish the toilet room with whatever paint happened to be left in the can after doing the boat's topsides—and get away with it.

The bathroom now is of scarcely less importance than the motor room—to the female members of the crew it is probably of even greater consequence. The naval architect has learned that the creation of a beautifully colored bathroom gives him abundant oportunity to display his talents and please his clients. The boat builder understands that a luxurious, well-appointed bathroom will always excite admiration and help to sell his product. The owner realizes that atractive, reliable plumbing fixtures will impress his guests and increase the resale value of his craft.

Then, too, the very great convenience of a completely equipped bathroom should recommend its installation even though the edict of fashion be scorned. Space devoted to a little tub, a shower, medicine cabinet, towel racks, holders, etc., in addition to the conventional lavatory and water closet will never be regretted.

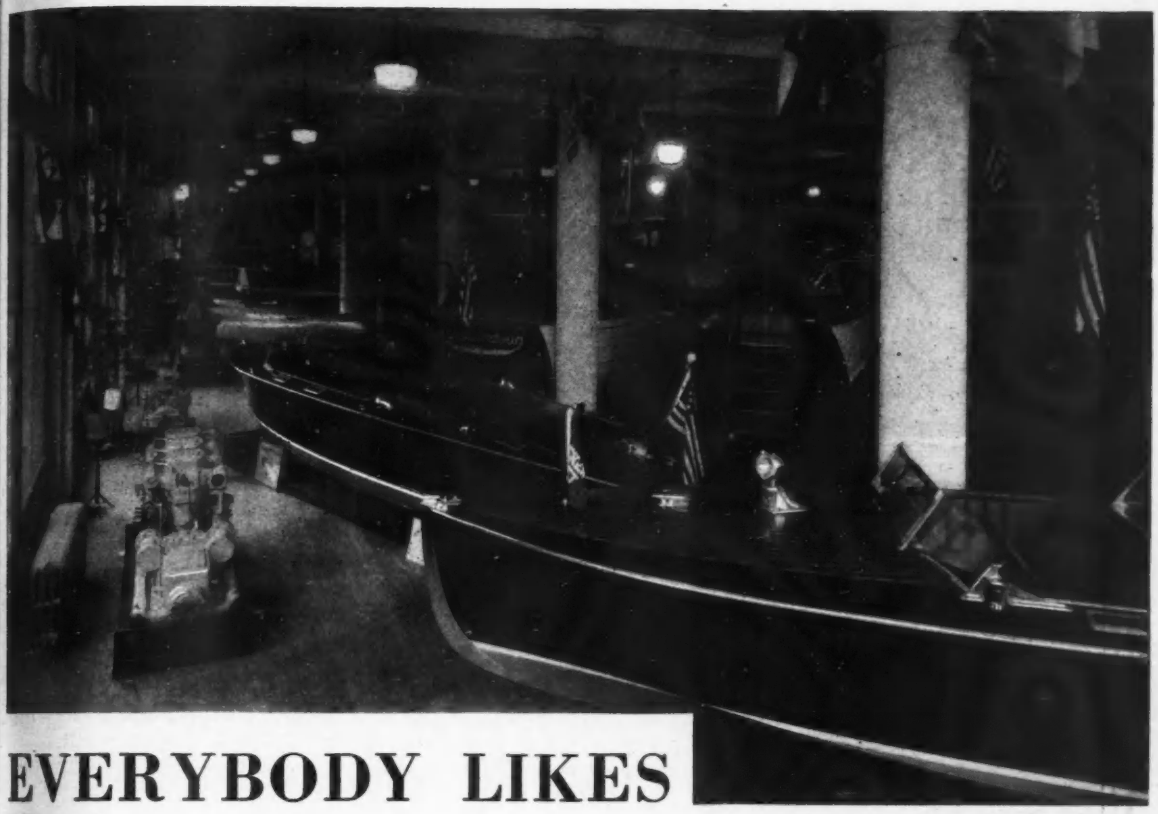
A cleansing fresh water shower after the salt water swim is considered most desirable; while a hot salt water tubbing is a luxury that is within the reach of the cruiser owner—and few other people.

With proper racks for toilet appliances the grievous shipboard intimacy that often exists between the tooth brush and the frying pan would be effectively broken off. And surely madam's nose can be powdered much more alluringly before a lovely plate glass mirror than with the doubtful aid of the skipper's shaving glass.

Through long experience we hardened mariners have learned to know that madam's nose must be continually and properly taken care of, otherwise the cruise will be a dismal failure; and so anything we can do to make her more happy about the appearance of that important organ, even to moving the engine, will be time and money well spent.

And it is surprising how little room is needed for a complete and very handsome installation. Within a floor space of two and a half by five feet it is possible to create a bathroom that in luxurious beauty and completeness of appointments will leave nothing to be desired. There are few cruisers longer than thirty-six feet in which this amount of space could not be spared for a bathroom with gratifying results. With a little thought and the the expenditure of a modest sum of money any owner of such a boat can have a bathroom to be proud of instead of a place for which to apologize.

Advertising index will be found on 3rd last page



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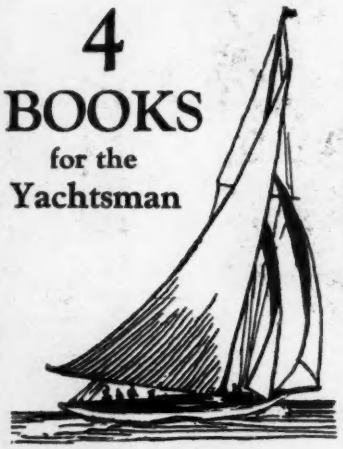

The Complete Yachtsman

By B. Heckstall-Smith and Capt. E. DuBoulay

This is a standard work, containing *everything* the yachtsman should know, and important both to the embryo yachtsman and the man of experience. Partial synopsis: Building and Sailing a Small Boat; Rigging and Knots, Seizings, Lashings and Splices; Seamanship; Setting Sails, Steering and Handling; The Crew and Their Duties; Tides; Signals, Lights and Buoys; Rules of Yacht Racing; Measuring a Yacht; Racing, a Typical Race; Comfort on Board; Dinghies and Tenders; Buying a Yacht; Yacht Designing, Principles and Details; Calculations; Ice-Yachts; Sand Boats; Sea Fishing; History of Yachting; Famous Boats; Types; Modern versus Earlier Designs; Cruising; Plans for a six-ton cruiser and a 15-ton cruiser; Since the War; Increased Costs and their Effects; the New Rating Rules. Thoroughly reliable. 489 pages, fully indexed. With 40 plates and 100 diagrams. $8.00.

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By John Scott Hughes

Something of the history of famous yachts, their captains and crews, their owners and designers, their designs and their races, from the early vessels to those of modern times. A most interesting, picturesque and at times romantic volume of yachts and yachting. With a profusion of beautiful "tipped on" illustrations of famous yachts. A book every true yachtsman will keep and cherish. $5.00.

Small-Boat Sailing

By E. F. Knight

Mr. Knight was an experienced and daring boat-sailor and the author of several well-known technical works and stories on sailing and sailing ships. This book is one of the most comprehensive and useful manuals on small-boat sailing ever written. It includes a thorough explanation of the management of small yachts, half-decked and open sailing—boats of various rigs; sailing on sea and on the river; cruising, etc., an invaluable work of instruction for the "beginner" and a most useful book for every "single-handed" sailor. Carefully and simply written, easy to understand and illustrated with many explanatory diagrams. $2.50.

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By A. Basil Lubbock

A seaman's journal of his hardships, dangers and adventures aboard the "Royalshire," sailing from 'Frisco to Liverpool. Days of windjammers and down-easters, brutal captains and blood-thirsty mates, fierce hurricanes and raging gales. The "real" days of the sea. And written with such natural simplicity that you can almost hear the wind roaring through the rigging. One of the most entertaining sea journals ever written. Every true lover of the sea and its ships will make a permanent place in his library for this book. Profusely illustrated. $2.50.

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YARD & SHOP

(*Continued from page 66*)

ous wake that they are creating. Persons who have unconsciously been guilty of this unfair practice should bear in mind not only their legal responsibility for damage which they might do with their wash, but also their moral obligation to treat their brother boatmen with the same consideration that they would expect themselves, if their places were reversed. Let's all cooperate on this and make it unnecessary for the government to shut down on our sport with needless legislation and restrictions.

POWER PLANTS FOR EVERY BOAT

An especially interesting catalog has been prepared by the Gray Marine Motor Company to acquaint the boating public with the complete line of new motors which they will manufacture for the coming season. Photographs taken in the Gray plant and numerous diagrams showing mechanical details are included so that the reader may have an accurate conception not only of what the product is like but also of how it is made. All structural features are described in detail so that a prospective purchaser may know exactly what he is getting. Copies of this catalog may be secured free of charge by writing the Gray Company at Detroit, Michigan.

OLYMPIA-JUNEAU RACE IN JUNE

Tentative plans made by the committee in charge of the 1929 Capital to Capital Race from Olympia, Washington, to Juneau, Alaska, have been drawn up, the date being sets for the early part of June. This will give yacht owners who desire to take part in the Pacific International Regatta at Vancouver, B. C., early in July ample time to participate in both events.

A set of rules has been drawn up by the Rules Committee in which provision has been made for the addition of an extra class so that this year cruisers up to 150 feet in length will be eligible. Three new entries this year are over 100 feet in length, one of which comes from California, and it is expected that a considerably larger entry list than last year will be received.

A FAST DIESEL

To meet the demand for a diesel powered yacht that would be nearly as fast as the larger commuters and at the same time have fair cruising accommodations, Thomas D. Bowes, naval architect of Philadelphia, Pa., has developed a new type of express cruiser.

The new boat, Sirene, built by the Salisbury Shipbuilding Company, is 85 feet long, 14-foot beam and three foot 9-inch draft and is a departure from the accepted type of hard bilge express cruiser design. With round bottom, full forebody and well rounded bilge aft, good dead rise is secured for the entire length, making an exceptionally able boat. At the same time tests show that she is capable of an excellent turn of speed, the 300 h. p. Treiber Diesels propelling her at 20 knots. Construction is strong and the deeper body design gives a maximum of accommodation.

D. O. A. ELECTS OFFICERS FOR '29

By unanimous election at the annual meeting of the Detroit Outboard Association, new officials were chosen for the coming year, with a complete change of flag officers.

A. L. Horn becomes Commodore; C. H. Nunelly, Vice Commodore; and D. R. Downing, Financial Secretary. A new board of directors was also selected and the association voted to become a charter member of the N. O. A.

NEW A. P. B. A. MEMBERS

Two new clubs have recently been welcomed into membership of the American Power Boat Association. One of these is the Player's Boat Club, Inc., of Fair Haven, N. J., and the other is the Oyster Bay Yacht Club of Oyster Bay, N. Y. Membership has also been proposed for the Long Island Associated Racing Squadrons of Flushing, N. Y., and the Anthracite Outboard Motor Boat Club of Scranton, Penna.

RUNABOUT QUALITY

Tht high degree of perfection to which modern runabout contruction has been developed is well illustrated in a new booklet prepared by the Hacker Boat Company of Mount Clemens, Michigan.

Whether or not he is interested directly in the purchase of a fast craft, any person who appreciates fine workmanship in a boat should make it a point to secure a copy of this catalog. Fine mahogany speedsters ranging in length from 24-30 feet are illustrated, in both open and closed models. A letter addressed to the Hacker Company will bring one to you.

WEST COAST AGENCY FOR POPULAR RUNABOUT

The increasing popularity of the runabout as a means of transportation along the west coast has prompted the opening of a new San Francisco office by the Hacker Boat Company of Mt. Clemens, Michigan. A complete display of the Hacker Dolphin runabouts has been arranged in the Rialto Building, S. Clyde Kyle being in charge of the agency.

(*Continued on page 164*)

World's Wonder Wrench

Banishes Old Style Wrenches!

For motor boating, camping . . . . for every need . . . you'll find "SPEEDNUT" a friend indeed. Entirely new in design and principle. Never before a nut wrench like "SPEEDNUT." Actually a whole kit of wrenches in one. Adjusts itself to all nuts automatically. No need for screw adjustment. No need to guess as to the proper size wrench to use. Here at last is a wrench that can't slip. And one that permits a tighter grip the harder it's pulled. Works in close quarters by 1/12 turn grip. It ratchets with surprising ease, loosening or tightening operation. Best of all, the "SPEEDNUT" is foolproof and unconditionally guaranteed.

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FREE KIT OFFER!

The "SPEEDNUT" is made in two sizes that cover a wide range. The 6" size, with jaw opening of 15/16", is priced at $2.50. The 8" size, with jaw opening of 1⅛", is priced at $3.50. Special Combination Price for both sizes, $5.50, with handsome Pocket Holster FREE. Order direct from this ad now, today. Put "SPEEDNUT" to the test. If you're not delighted and amazed with its marvelous efficiency and economy, simply return and we'll refund your money without question.

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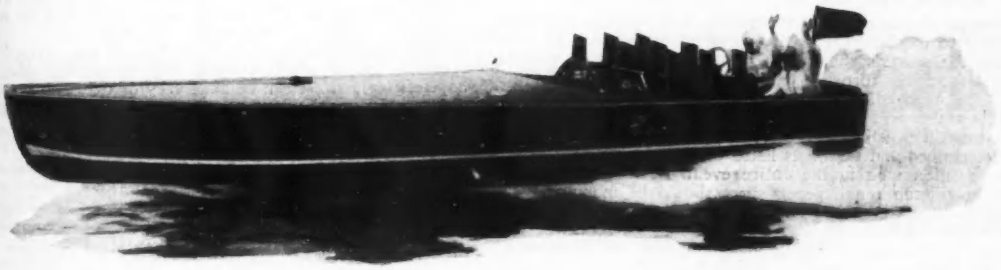

Another World Record for Columbians

Gar Wood
Does 93.123 m.p.h. at Miami Beach

Fashionable Miami Beach went wild Monday, March 25th, when Gar Wood's Miss America VII beat his record of last year. Two Columbian Bronze Propellers translated the tremendous power of Miss America VII into 93.123 m.p.h. Last year they propelled the same boat to victory when Gar Wood took the International Harmsworth Trophy. 92.838 at Detroit 1928! 93.123 at Miami Beach 1929!

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Write for
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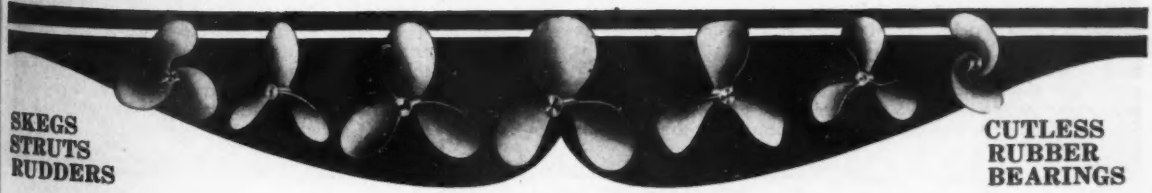


SKEGS
STRUTS
RUDDERS

CUTLESS
RUBBER
BEARINGS

Accuracy in Records

(*Continued from page 74*)

contestants. As the boats cross the line at the end of their first lap the times are read from the split second hand and recorded in order in the column headed First Lap on the timer's record sheets. No attempt is made by the timers to record the identity of boats. It is a good plan however for the chief timer or his assistant to occasionally jot down the name or number of a boat on one of the timer's sheets alongside the time entered thereon for her as such an entry can be of the greatest utility in straightening out a snarl in the records. As the leading boat approaches the finish line on her last lap the timers take up their stop watches in one hand and split seconds watches in the other. As the bow of the boat hits the line the stop watches are stopped and the split second watches used as before by stopping only the split second hand and recording its reading. The stop watches are not read until there is a sufficient interval between finishers to read them with care and record their readings on the timer's sheets in the space reserved for *Time of winner by stop watch.* The split second watches are kept going until the last boat has finished and the time of all finishers is taken with their split second hands.

The record sheets of both the timers and scorers are then turned over to the computers who work up the summary. One man takes the scorer's sheets and another the timer's. A third man has a summary form on which a rough pencil draft of the event will be prepared. Most races now-a-days are run in two or three heats and it will be necessary to prepare a rough summary for each heat in pencil before the points won by each contestant can be determined and the boats listed on the smooth copy in the order of position won in the entire event. The form for the preparation of each rough pencil sheet should be mounted on a drawing board of convenient size with a similar form and sheet of carbon paper under it so that a carbon copy of the sheet will be available for the use of reporters. The names, or racing numbers, or the boats in the order in which they finish the race—not in the order in which they finish the first lap—is first read off the scorer's sheets and entered on the summary form. The work must be carefully checked to eliminate mistakes. The six times taken on the winner should next be averaged and the arithmetic mean entered in the column headed total elapsed time. The times of all other boats completing race should next be obtained by averaging the three readings obtained on each boat with the split second watches. These times are entered in the total elapsed time column opposite the names of the boats. All computations, even the simplest ones, must be made independently by at least two men in order to obtain satisfactory checks and avoid mistakes. This does not mean that simple computations may not be made mentally, but it does mean that they must be made independently by at least two computers. One man looking over another's shoulder and watching for mistakes does not give a satisfactory check, and it is never safe to let a computer check his own computations. Similarly there must be independent checks on the reading off of the names of boats from the scorer's sheets. After the finish times have been computed and entered the times for the completion of the next to the last lap should be obtained in a similar manner and entered in small figures in the bottoms of the appropriate spaces. The preceding laps are then similarly handled except that in the space for the first lap the times may be entered in the centers of the spaces in fairly large figures. The lap times for the second lap are obtained by subtracting the time for the first from the time entered in small figures in the bottom of the second lap column for each boat. The small notations, which are in reality the total elapsed times for the first two laps, are then crossed out, *not erased,* the lap times being entered above them. Great care must be exercised in compiling the data on lap times to guard against entering the times against the wrong boats. This can be avoided only by the most careful correlation of data from the scorer's and timer's sheets. The working out of lap times and speeds on all contestants is advocated with a full knowledge of the fact that such times and speeds do not constitute official records. They often however give invaluable information to drivers on the performance of their boats which in the opinion of the writer warrants the considerable amount of work involved in preparing a complete summary in this way.

Because of the fact that lap speeds do not constitute official records the use of split second watches may be dispensed with and stop watches substituted for them if watches of the split second type prove difficult or impossible to procure. Such substitution will involve reading the stop watches on the fly without stopping them for lap times and the finish times of all boats except the winner. Three watches are of course stopped on the winner to insure a precise determination of his time and speed just as is done if split second watches are used for the other boats. The method is objectionable, however, as it fails to give a really precise determination of the time and speed of the winner if the first boat to finish is disqualified and the second boat to finish wins. In general the average of the times obtained from three split second watches should not be in error by more than two or three tenths of a second in ten minutes while if the times are obtained by reading stop watches on the fly the error may be easily twice as great. Timers should read and record their readings in fifths of seconds. The computers will convert the fifths to tenths. The timers have to work too quickly to undertake even this simple computation.

A word of caution should be given as to the rejection of times when the records of three or more watches fail to agree. If two watches happen to agree exactly and the third varies from them by one or two fifths of a second there is a most unfortunate tendency on the part of inexperienced computers to reject the reading of the third watch and accept that of the two that agree. This is a practice which should not be countenanced for a moment. Unless a recorded time contains an obvious mistake or a very large error it should be retained and averaged with the others. No hard and fast rule can take the place of judgment in reaching a decision as to the rejection of a time, but in general it may be said that no time should be rejected which is within three fifths of a second of the mean of the other two.

When the times have all been figured and entered the corresponding speeds are computed. To do this by long division is hopelessly slow. It can be done very quickly and accurately with a computing machine of the type of the Monroe Calculator and there should be a man in the computing squad familiar with the operation of such machines if one is to be used. The electric machines are quite a bit faster than the hand operated ones and should be used if current of the proper voltage and characteristics is available. The formula for figuring the speeds which is most convenient to use is:

$$\text{speed} = \frac{\text{distance in miles} \times 3600}{\text{time in seconds}}$$

An approximate check on the computing machine should be made with the slide rule to eliminate mistakes.

An even quicker method of computing speeds than the Monroe machine is offered by the Timing Table. The tables for two and a half miles and five miles which were developed and used at San Diego are reproduced with this article. They have proved very satisfactory during the past two seasons. They consist of tables giving the speeds in miles and hundredths of miles per hour for each minute and second taken by a contestant to traverse a course of given length. The tables cover the ranges of speeds commonly met with in hydroplane and outboard racing. The differences between the speeds for a one second difference in time are also given in the columns headed *Diff.*" The way in which the tables are used can best be explained by an example. Suppose that a boat runs a two and one half mile race in 3 minutes 53.9 seconds. What is her speed?

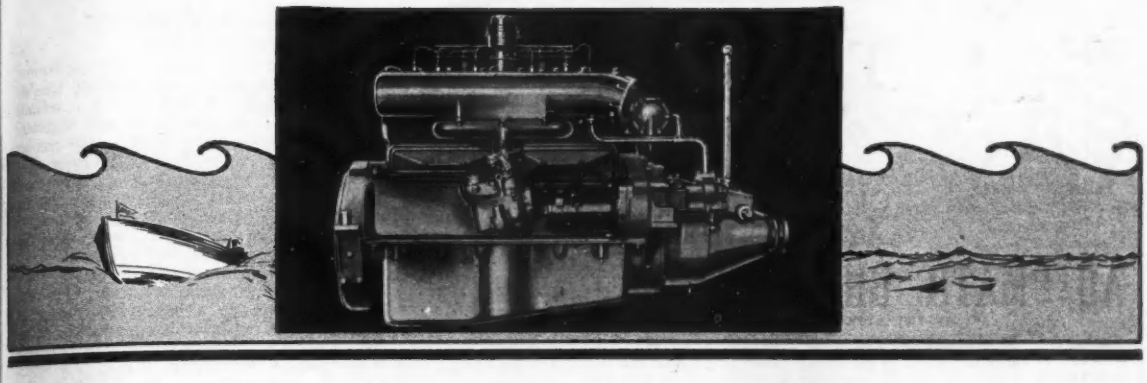
Turning to the two and one half mile table and in the column headed c *MIN* opposite figure 53 in the left hand seconds column the figure 38.63 is found. This is the speed for 3 minutes 53 seconds flat. The difference between the speeds for three minutes fifty three seconds and three minutes fifty four seconds is given in the *Diff* column opposite the speeds for the *latter* time. The difference is .17 miles per hour for one second and for 0.9 seconds it will be .17X.9=.153 miles per hour which is recorded as .15 as thousandths of a mile per hour or utterly beyond the range of precision of the timing. 38.63 *minus* the difference of .15 equals 38.48 which is the speed for 3 minutes 53.9 seconds. It sounds rather complicated at first but looks simpler in this form

speed for 3 min. 53 sec. = 38.63
diff. for 0.9=.17 X .9 = .15

speed for 3 min. 53.9 sec. = 38.48

Be sure that the difference is subtracted and not added. After a little practice the computation of the differences, interpolations as they are called by mathematicians, can be made mentally and this is the way in which the tables are used in practice. One man reads off the times from the summary sheets. A computer with a timing table calls back the corresponding speeds for entry on the sheet. The figures are then checked by an independent repetition of the process. It will be found that from four to six speeds a minute can be taken from the table in this way without difficulty and with but few mistakes. Such mistakes as are made will be caught and corrected by the subsequent independent check. There is a possibility that in a very few cases the tables may give a speed that is in error by 0.01 miles per hour. This is not a serious matter in consideration of the fact that the precision measure of the speeds is only .07 miles per hour. The 5-mile table can be used for distances of 10 and 15 miles by dividing the times taken to run these distances by 2 and 3 respectively, and

(*Continued on page 158*)



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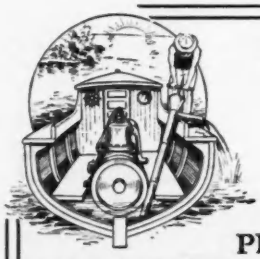

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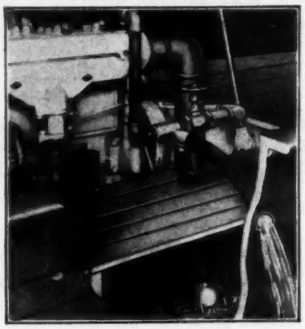

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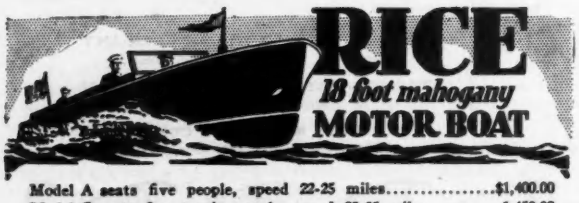

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RICE BROTHERS CORPORATION

EAST BOOTHBAY, MAINE

Reasons for Bad Weather

(*Continued from page 60*)

From what has been said it is quite apparent that the barometer is a reliable instrument for determining possible weather changes. After all, this instrument is nothing but a delicate balance which in effect weighs the atmosphere and translates this weight into a reading which is equivalent to the number of inches of mercury which the atmosphere will sustain in a vacuum tube as used in the mercurial barometer. This is the original form in which this instrument was first made and the more modern aneroid type follows the same type of reading. Some manufacturers place on the face such marks as storm, change, rain, or similar designations which are of no value whatever in a forecast. It must be remembered that a single reading of a barometer is of no value whatever. For this reason the recording type known as a barograph is ever so much better since it is arranged to trace a continuous line on a revolving drum which gives a continuous record of all changes. (See illustration.) The ordinary barometer, if read only morning and evening, may have gone through a decided change and the two observations may be closely alike. To correctly read a barometer it is necessary to read it with great regularity and continuously, at the same time keeping a record of the readings. It is only in this way it can be determined whether it is rising or falling and the relative rate of the changes.

It can be generally considered that a stationary barometer will indicate that the conditions as they exist at the moment are likely to continue. Whether the tendency will be to rise and fall may be determined by a light tap on the face of the instrument when the needle will jump slightly indicating which way the trend will be. The usual range of barometric changes in middle latitudes will be between 29.50 inches and 30.50 inches, with an average condition of about 30. A slow rate of fall does not necessarily mean the approach of a storm, although if the rate reaches .05 inch per hour it is considered a high rate and a storm can be expected. Sometimes a barometer will change appreciably without any change in the weather and this frequently indicates a storm of considerable violence at a distant point which affects the pressure in large areas surrounding it.

A steady gradual rise will indicate settled weather.

A steady gradual fall indicates wet weather.

A slow rise from a low point frequently brings winds and dry weather.

A rapid rise indicates high winds and clear weather.

A very slow fall is usually a sign of wet weather, with light winds.

A sudden fall indicates a shower and high winds or both.

A rising barometer with cold indicates northeasterly winds.

A falling barometer and warmer indicates southwesterly winds.

This very brief explanation will help somewhat in forecasting weather changes but any who are really interested in this subject can find much interesting data on this subject and with practice and close observation of the barometer become quite proficient as amateur weather forecasters.

A. P., Bronx, N. Y.

Reading Weather Signs

ON the Atlantic seaboard there are unmistakable signs which foretell what the next day's weather will be. A falling barometer will indicate bad weather from the northeast, east and southeast ordinarily, since northerly blows are infrequent during the summer period, but during the summer time the best of barometers are apt to be sluggish, not through any inherent defect of the instrument, but on account of the many short notice changes which accompany warm weather.

Hence, it is advisable to become weather wise rather than barometer wise. There is no question but the time-honored custom of reading sunrise and sunset is one to be commended.

"Evening red and morning gray sends a sailor on his way; but evening gray and morning red makes a sailor shake his head." There is just one hitch in this old saying and that is what constitutes red. One would naturally think that red is red, but a glance at the color card of any paint manufacturer, for instance, will convince one that there are varying degrees of redness.

So, too, in the sunset. There are varying degrees of red and upon the depth of color depends the next day's weather. The deeper the red, the greater the possibility of the next day being stormy. One has simply got to fix in his mind's eye the red of the fair day sunset.

Clouds at sunset are spoken of as soft and hard. It is easier to differentiate between these and the varying degrees of red. The softer the general appearance of the clouds at sunset, the better the coming day will be and vice versa.

When the sun goes down in a clear sky, blazing away in all his glory, one can expect more than a hatful of wind on the

(*Continued on page 132*)

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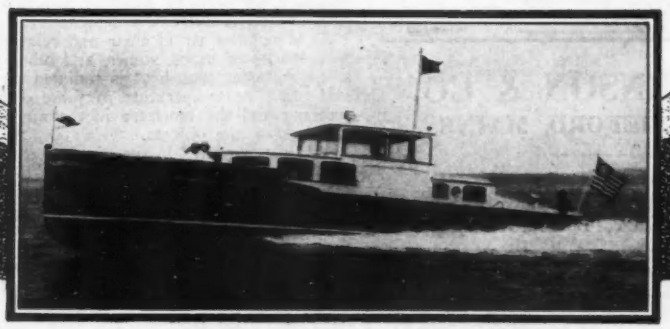

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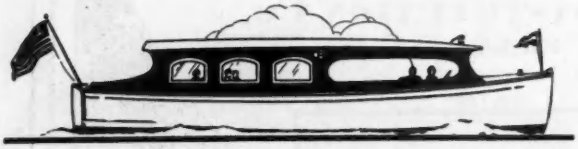

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"It Costs Less to Build Good Boats in Maine"

Reading Weather Signs

(*Continued from page* 130)

succeeding day. Usually a sunset under these conditions is yellow. Following up the yellow sunsets one will find that a certain color will foretell wind, while another will predict wind and rain. The gradation of color will have to be learned by observation.

A low dawn and a high dawn have their meanings. A low dawn means that the sun comes up readily without any or few surrounding clouds. It does not give promise of as good a day as when the sun is high in the heavens before it breaks through the clouds. This latter is known as the high dawn.

Now to cloud forms. The long, streaky variety, as a general rule, mean bad weather. While mares' tails presage bad weather, it is only when their points turn downward that this holds true.

One should learn to distinguish readily at least two cloud forms—cumulus and nimbus. Cumulus clouds which appear as immense tufts of cotton, the less dark color they contain the better will be the weather.

Cumulus clouds will change color rapidly with the addition of vapor until they become flattened at their bases with a characteristic dark streak and later will develop into the well known thunder heads.

A sultry morning with gathering clouds in the southwest quadrant, with the sun being obscured now and then, can be taken as a sure sign of a thunderstorm.

Lastly, the winds. When the wind changes, working from, say, the south to the east to the north, in other words backing up against the sun, there will be little hope that the weather being bad there will be any better coming for twenty-four hours at least, but if the wind veers around in a clockwise direction—going from north to east, to south, etc., one can take this as an indication that clearing weather is not far distant.

When a southeast wind blows steadily all day, despite a clear sky which often accompanies this condition, a rainy day can be looked for on the morrow.

The wind always blows in the direction from which the next storm can be expected. Checking up on this fact alone will allow the commuter or the cruising man to expect that the predicted blow will either drive him before it or give him a run smashing into it bows on.

J. E. M., Norwich, Conn.

How Much Do You Know About The Weather?

IMPROVE your knowledge with these questions, chosen from hundreds asked by readers of *Popular Science Monthly*. We pass them on to our readers also. Correct answers are given below.

1. How high are the clouds?
2. What is the difference between a hurricane, a cyclone, and a tornado?
3. What causes frost?
4. What causes a red sky at sunset?
5. What causes rain?
6. What is a rainbow?
7. What is the meaning of the lines on a weather map?
8. What does a barometer tell about the weather?
9. What causes the rings around the moon?
10. What is a hygrometer?

1. The formless, foggy clouds known as stratus may float as high above sea level as 3,000 feet. Cumulus clouds, that look like masses of cotton wool, average from 4,500 to 6,000 feet high. Cirrus clouds, those isolated feathery white clouds, average 27,000 feet above the earth.

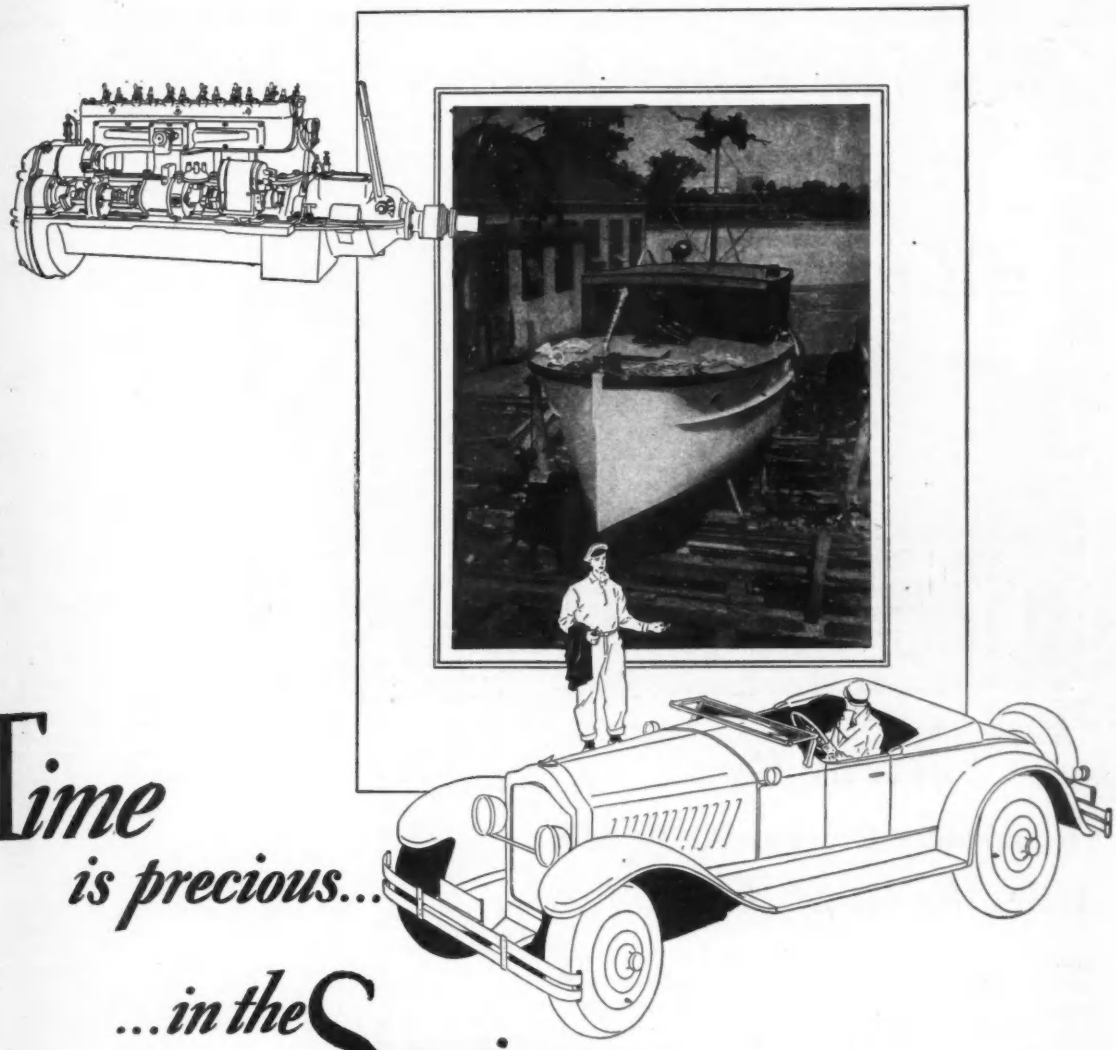
2. The cyclone is a disk of air about 1,000 miles in diameter that revolves horizontally. The hurricane is a cyclone of smaller area with considerably greater vortical action, which makes it more destructive. The tornado is a revolving mass of air approximately 1,000 yards in diameter, which because of its furious vortical motion is extremely destructive.

3. When the air is clear and relatively low in moisture content, blades of grass, stones, and other objects radiate their heat at night faster than heat is radiated to them by the surrounding still air. The temperature of these objects therefore falls below freezing and the moisture in the air congeals into frost on the surfaces of the objects.

4. Dust particles in the air scatter and diffuse light rays, but the effect is more pronounced on the violet, blue, green, and other colors than it is on red. Thus when the air is dry and no moisture forms to balance the effect of dust particles, the sky will look red at sundown, because the dust particles diffuse the other rays and let the red light from the clouds come through to your eyes.

(*Continued on page* 134)

Advertising index will be found on 3rd last page



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Palmer Engines are dependable. New designs, free from faddish freaks, give lightness, compactness with the same old Palmer sturdiness. There is a Palmer engine for every type of boat.

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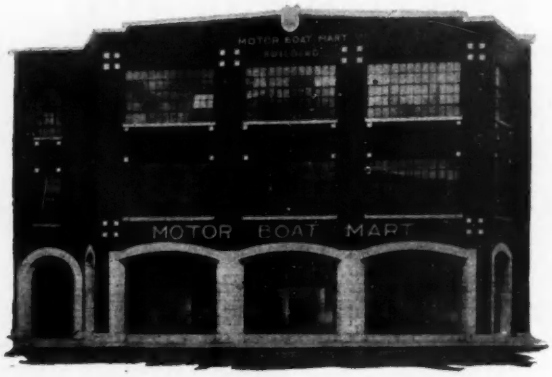

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The Motor Boat Mart is opened to the public every day of the week. There is no admission charge. Before selecting your new boat inspect the latest models at the Motor Boat Mart.

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ADMISSION FREE

MOTOR BOAT MART

2222 Diversey Parkway
CHICAGO, ILLINOIS

How Much Do You Know About the Weather?

(*Continued from page* 132)

5. Rain is produced by the condensation of water vapor out of the atmosphere on the countless thousands of dust particles always floating in the air. This condensation can occur only when the air is cooled below the dew point. Warm, moist air cools as it rises and expands. When the temperature drops below the dew point rapidly enough, drops of water will form, heavy enough to fall as rain.

6. When light strikes a transparent sphere such as a raindrop, part of it is reflected from the surface and the rest penetrates the surface and is refracted. The refraction spreads the light into its component colors, which you see in the form of a brilliant rainbow.

7. The lines on a weather map are drawn through points where the atmospheric pressures are equal. They are called isobars. By studying them you can determine the air pressure at various parts of the earth surface, and also predict the probable direction of the wind.

8. The barometer is an instrument that measures atmospheric pressure. A steady rise usually indicates settled fair weather. A slow rise forecasts dry weather with plenty of wind, while a rapid rise indicates clear weather with high winds. A falling barometer indicates wet weather, and if the fall is rapid you may expect wet weather or high winds or both.

9. Halos or rings around either the sun or moon are caused by the refraction of light by enormous numbers of tiny crystals of ice formed high in the upper air.

10. A hygrometer is an instrument that determines the relative amount of water vapor contained in the air, or relative humidity. There are several varieties, the most common being the wet-and-dry-bulb type. Two thermometers are mounted side by side. The bulb of one is exposed to the air, while the other is covered with fabric kept wet with water from a vessel below. The evaporation of this water cools the fabric covered bulb more than the dry one, so that the thermometers read differently. Since the rate of evaporation depends on the amount of moisture already in the air, the difference in the reading determines the relative humidity.

A Simple Alarm

(*Continued from page* 62)

A battery of six dry cells is used instead of connecting with the storage battery on board the boat. Possible damage to the storage battery might occur in the case of the horn blowing for a long period, during which time the storage battery might be exhausted to a point of buckling the plates.

The conventional pull switch can be utilized in rigging up a burglar alarm in connection with the companionway steps. The switch is fastened into one side of a small box (about 4 by 4 by 5 inches) and connected by a small brass chain to a bell crank of ¼ inch round iron. This rod is flattened on the right angle bend, a hole bored in the flattened part and the rod attached to a block of wood by means of a round headed screw.

Above the switch and fastened to the box and to the top of the bell crank is a spring with tension enough to sustain the weight of the steps when one leg of them is placed on the end side end of the bell crank. When the device is set, the bottom of the steps should be about one-half inch from the floor.

When anyone steps on the stairs, the switch is pulled and if the intruder takes his weight off the steps the switch will not be pushed into an off position, since the chain possesses no pushing power. Two screws will fasten the device to the floor and insure against any sidewise slipping.

The chain is soldered to the switch handle and attached to the bell crank with fine copper wire or with cord. Note that the vertical member of the bell crank should be approximately twice as long as the horizontal portion.

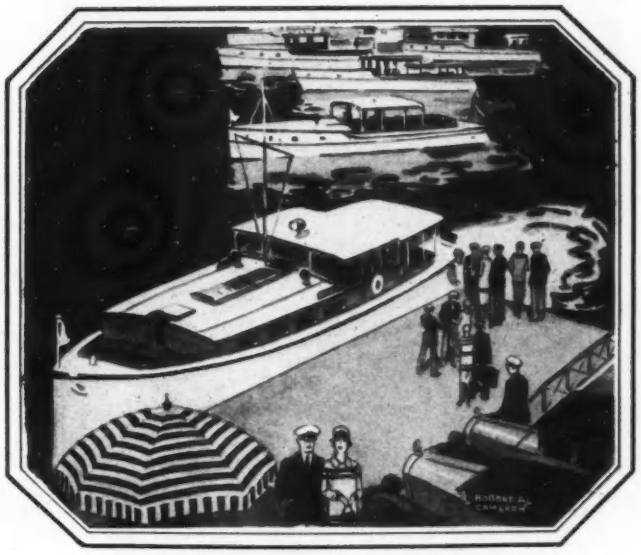
This device can be used with either a gong or with the boat horn. The cutout switch and the dry cell battery applies to this as well as to all other devices mentioned in this article.

Using a galvanized wire for mooring purposes, making it continuous from anchor to bits passing the end down through the chain chock and fastening below will thwart a thief.

If the end of the cable instead of being passed below deck is attached to a cord which passes through a small screw ventilator and is attached to a pull switch, the pulling away of the cable will actuate a pull switch fastened to a carline.

Fastening a pull switch under the combing in proximity to the steering cable, and passing a cord from it through a fairlead leader to a toothed battery clip, which in turn grips the steering cable is a simple way to foil the thief.—J.E.M., Norwich, Ct.

Advertising index will be found on 3rd last page



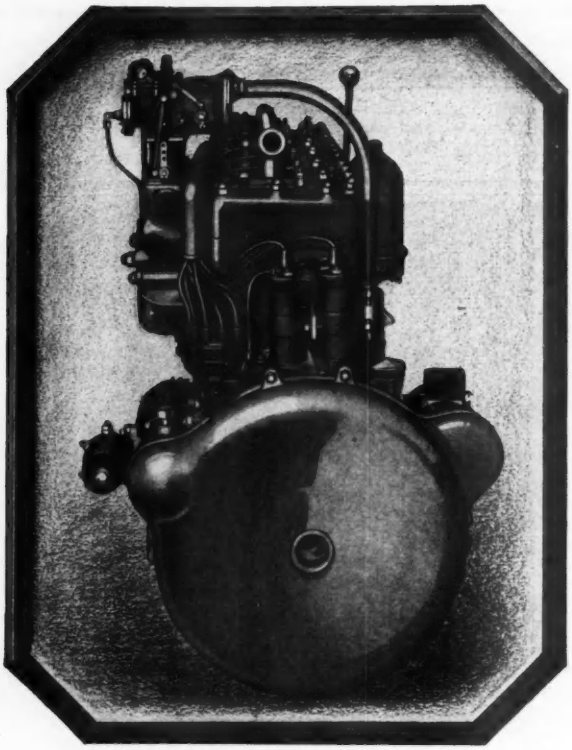
Boat designers rely upon Auto-Lite

Dependable performance on millions of motor boats, motor cars and motor trucks has been the dominant reason why designers of small and large motor boats choose Auto-Lite.

The millions of times a day that boatmen and motorists step on the Auto-Lite button constitute tests which definitely prove the supremacy of Auto-Lite for quick, faithful action . . . . The Electric Auto-Lite Company . . . Office & Works: Toledo, Ohio . . . *Also Makers of DéJon*

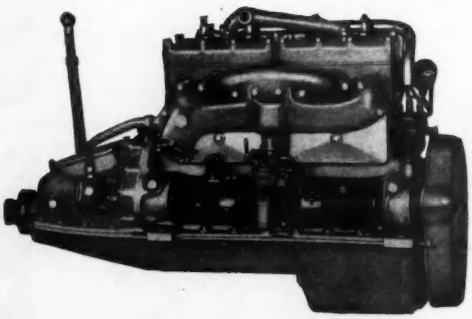
Auto-Lite

Starting, Lighting & Ignition



From Every Viewpoint
A MASTERPIECE

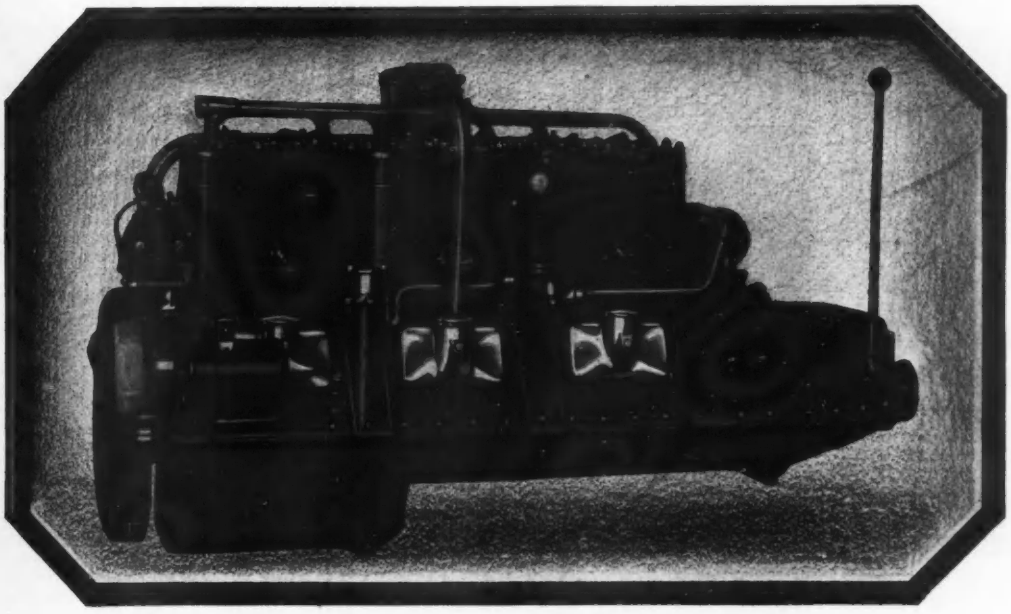
THE skilled engineer is unwittingly an artist. Whatever his creation, be it staunch and true structurally, it is ever pleasing to the eye. From whatever angle you may view a SCRIPPS its mechanical perfection reveals itself in the compact simplicity of its outline, in its sturdy yet graceful contour. Every detail reflects the touch of the deft technician. Each of its smooth lines is suggestive of sheer power, endurance, stamina, determination — the will to do.



Model F-4—A remarkably versatile little motor suitable for most every type of craft from the 16-foot open launch to the 50-foot auxiliary.

No motor presents a more compact assembly than the SCRIPPS. Each accessory is snuggled closely to its body, yet each is conveniently accessible. Manifolds are

Advertising index will be found on 3rd last page



within the overall width of the engine bed. Reverse gear housing is neatly tapered and uncluttered with accessories. Overall height is such that the complete motor slips readily beneath the flush hatch of the runabout or the low bridge of the cruiser. In length it appropriates not one inch of space which might be better devoted to cockpit or cabin.

Distribution of weight with relation to torque has been accurately calculated, in the SCRIPPS, to eliminate listing at high speed

Whether your boat be a modest open launch, a rugged determined work-boat, a roomy auxiliary, a trim leisurely cruiser, a spectacular sea skiff, a dashing commuter or a snappy top-speed runabout, SCRIPPS provides you with the correct power plant. Ten models —15 to 200 Horse Power.

Model 160—100 H. P. at 1400 R. P. M. In the hold of the determined workboat, in the after quarters of the heavy auxiliary, or under the bridge of the smart cruiser, it will remain ever faithful to its trust

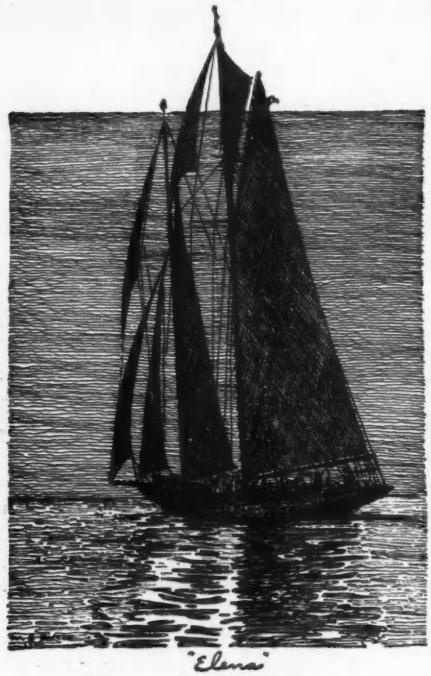
A fully illustrated 32-page catalog describing all Scripps models will be sent on request.

SCRIPPS MOTOR COMPANY, 5819 LINCOLN AVE., DETROIT, MICHIGAN

SCRIPPS

• THE MOTOR THAT CROSSED THE ATLANTIC •

THE WINNER'S ACCOUNT OF THE OCEAN RACE TO SPAIN



Owner, W. B. Bell

A book worth owning

"A notable addition to the libraries of yachtsmen and lovers of sea literature." — Oakland Tribune.

"For all who have ever felt the spell of the sea."—*Boston Globe.*

"A book for every sportsman and for every lover of the sea."—*Sportsman's Digest.*

A full and extraordinarily interesting account of the winning yacht *Elena's* dash across the Atlantic in 16 days from New York to Santander and her reception in Spain. Photographs of every yacht in the race—charts showing position of *each* yacht every day—and detailed technical information—as well as the exciting narrative of the adventures of the race itself. Including complete charts, maps, sail and hull plans.

$2.50 at all bookstores.

WINNING the KING'S CUP

By HELEN G. BELL

G. P. PUTNAM'S SONS **2 West 45th Street, New York**

Motorboating Abroad

Continued from page 16)

structed as to bar the usual type of outboard engine at the stern. Such craft as sailboats with long overhangs are not adapted to the usual outboard engine and the attachment at the side seems to be quite practical. Since these engines are intended solely as auxiliary and emergency equipment for boats of this kind the engines are of low power that is from 1½ to 2 horse power, and they seem to answer the required purpose very nicely. They are very light in weight and yet produce sufficient power to drive the boats. These same little engines have also been applied to boats of the canoe type and have been able to drive a canoe with two persons and camp gear at the rate of 7 m.p.h. The propeller shaft on these little machines is arranged to be quickly detachable, and they can be readily stowed in almost any available corner of the boat. Weights are about 18 to 20 pounds while the piston displacement of the engine is between 5 and 6 cubic inches. A prominent builder of these little machines is also undertaking a generally similar engine to develop 3½ h.p. which naturally will be able to yield a much better performance than the very small machine described.

The Van Dorn electric sander, useful in smoothing down a hull.

SPEEDING UP THE SANDING JOB

Boat builders find Van Dorn electric sanders to be just as necessary a part of their equipment as their electric drills. In almost any boat yard where pleasure craft are built you can see a sanding operation on the hull or deck, prior to painting or on an old boat that is being re-painted.

Formerly this work had been done by hand with sand paper and was a very slow and tedious job. The electric machine has proved itself in hundreds of cases and cuts the cost for boat builders considerably.

BILGE WATER REMOVED BY SYPHON

Paradoxical as it may sound boats may now be cleared of bilge water by syphoning. A new device known as the Automatic Bilge Syphon accomplishes this by simply attaching it in the water circulating system of the engine in connection with a globe valve. The force of the circulating water supplies the necessary power.

The Syphon is simple in construction with no moving parts to get out of order and may be installed by anyone in a few minutes with the aid of a globe valve and two pieces of hose. The Automatic Bilge Syphon Company of 2100 Washington Avenue, Philadelphia, Pa., is the manufacturer.

Advertising index will be found on 3rd last page

Sterling

OPEN LETTER No. 3 TO MOTOR BOAT MEN

THIRD letter of a series bringing out uncataloged and fundamental differences in 200 H.P. engines; written to show the greater excellence of the 5¼" bore 6" stroke Sterling Petrel engine.

The crankcase.

Accepted marine practice includes hand holes on both sides of the upper crankcase, large hand holes, to permit bearing replacement if necessary without removing the engine from the boat. The presence of hand holes requires a system of internal bridging and bracing in the casting to withstand the centrifugal forces in a high speed engine.

What are these forces?

In a slow-speed engine, the explosion pressures in the cylinder are the greatest forces—300 to 450 pounds per square inch. In a high-speed engine, the centrifugal force of the crankshaft and lower end of the connecting rod and the inertia forces of the piston and pin and upper end of connecting rod i.e. the loads on the bearings are calculable in—not pounds—TONS!

How does that affect the engine?

Unless the crankcase is composed of strong metal, adequate to withstand the pressure of milling cutters when machining the crankcase, camshaft, and crankshaft bearings, will not be in line when the engine is originally assembled. If the base is distorted, a twisting and weaving will occur in service, with consequent oil leaks, breakage of studs and fastenings and rapid bearing wear and disintegration of the engine.

These forces can be reduced 50 to 75 per cent by the use of a counter-weighted and dynamically balanced crankshaft. The Petrel crank is counter-weighted. The crankcase is scientifically internally bridged and rigidly supports the loads, indefinitely staying tight.

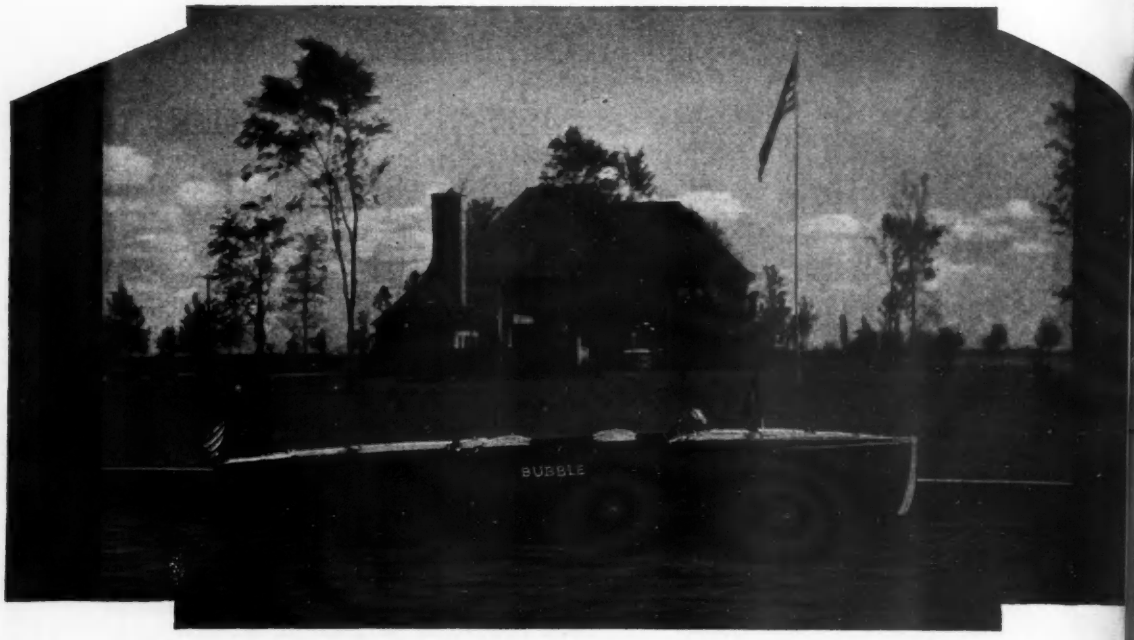
Various features of the Sterling Petrel will be described in ensuing advertisements to support our contention that it is the strongest, longest lived engine of its size or power. The comparative difference in the appearance of this engine will indicate to you its greater value.

C. A. Quigg
President.

STERLING ENGINE COMPANY
BUFFALO, NEW YORK

Engines range from 12 to 565 B. H. P.

Beneath the Matchless



"Bubble," a 29-foot Hackercraft owned by Mr. E. T. Strong, President of the Buick Motor Car Company, moored before his summer home on Lake St. Clair

TO own a Hackercraft genuine mahogany runabout is to share the conviction with hundreds of owners that Hacker builds keener beauty, greater safety, more alluring speeds into his boats than any other builder in America. Each model is designed and built to a hand-wrought standard of quality. Craftsmanship is never sacrificed for quantity production. Yet each model is priced to satisfy your shrewdest buying instincts—serve the most fastidious tastes. When the lure of the water beckons to you a Hackercraft will always respond. Let us arrange a demonstration for you at your convenience.

HACKER BOAT COMPANY
530 RIVER ROAD **MT. CLEMENS, MICHIGAN**

Each of the 4 Hackercraft models may be supplied with this handsome Sedan top at extra cost

HACKER

Advertising index will be found on 3rd last page

BEAUTY of Hackercraft is a Bulwark of Human SAFETY and Defiant SPEED

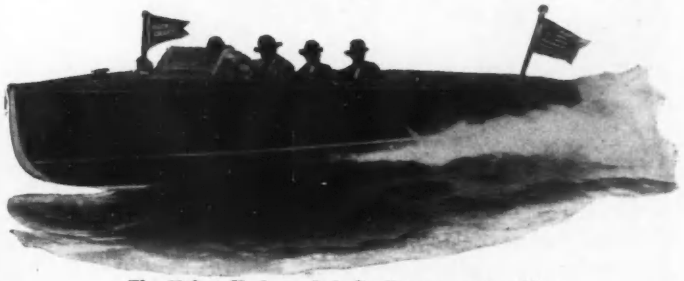
Beauty Study the perfectly molded contours of the new Hackercraft models for 1929. Here indeed is vital grace, sweeping stream lines, rakish curves that are living promise of speed and security. With unerring ability John Hacker has again produced a design that justifies every claim for unrivaled smartness and faultless beauty.

Safety Complete mastery of any situation or any sea is at your command with a Hackercraft. Countless features of exclusive Hacker design offer you a soundness of construction and a lasting dependability that becomes a permanent safeguard for your security.

Speed For those who can thrill to the feel of the wheel and the throttle—Hackercraft wholeheartedly responds. Hacker design is your assurance of speed—The recent Hackercraft racing triumphs are a positive guarantee of speed supremacy.

The 24-foot Hackercraft is a beautifully finished eight-passenger runabout powered with a Gray "8" to give 35 m. p. h. Price complete, $3150

The 26-foot Hackercraft is an outstanding boat at an outstanding price. Accommodates 10 passengers. Powered with the famous Kermath "200" to give 42 to 44 m. p. h. Price complete, $4475



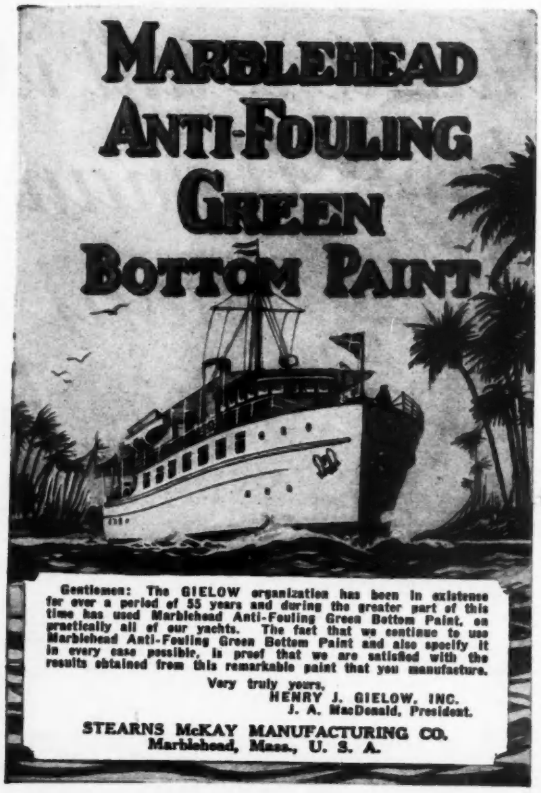
The 29-foot Hackercraft is Sterling powered. Offers 40-mile speed. Price complete, $5150

The 30-foot Hackercraft is a 10-passenger special De Luxe model powered with the 200 H. P. Kermath or Sterling to provide 40 to 42 m. p. h. Price complete, $5750

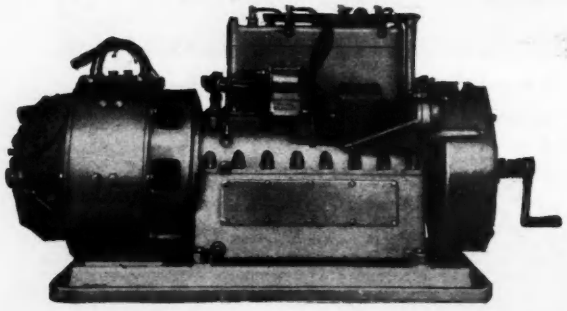
ON DISPLAY

New York, 5th Avenue at 15th Street; Boston, 1043 Commonwealth Avenue; Philadelphia, 102 So. 4th Street; San Francisco, Rialto Bldg.; Detroit, 500 E. Jefferson Ave.; Bay Shore, Long Island, 224 E. Main St.

RC R A F T


MARBLEHEAD
ANTI-FOULING
GREEN
BOTTOM PAINT
Gentlemen: The GIELOW organization has been in existence for over a period of 35 years and during the greater part of this time has used Marblehead Anti-Fouling Green Bottom Paint, on practically all of our yachts. The fact that we continue to use Marblehead Anti-Fouling Green Bottom Paint and also specify it in every case possible, is proof that we are satisfied with the results obtained from this remarkable paint that you manufacture.
Very truly yours,
HENRY J. GIELOW, INC.
J. A. MacDonald, President.
STEARNS McKAY MANUFACTURING CO.
Marblehead, Mass., U. S. A.

Over Size for Over Work



Every Universal Electric Plant is designed and built to have plenty of reserve strength. Working parts are over size and over strength just so they will do their jobs without complaint and with a minimum of attention. Remember that when you are looking for a lighting plant that will deliver its current year in and year out, without failures, without expensive care.

Our catalogue will give you full particulars. Send for it.

UNIVERSAL
MOTOR CO.
Dept. MBG-5
OSHKOSH, WIS.

Universal
ELECTRIC PLANTS
Not connected with any other firm using the name "Universal"

MARINE TYPES 1½, 2½, 4, 7½, 10, 12½, KW.

Pan-American Regatta at Havana, Cuba

(*Continued from page* 58)

A mishap of the day was the sinking of Paul Prigg's Biscayne Baby 12 when it hit some bad weather coming out of the Alemendares River.

This regatta was notable for the number of Cuban boats entered and the fine sportsmanship which was displayed by them in carrying their boats through the rough weather of the Alemendares River to Malecon. The regatta was closed by a banquet and ball for the visiting yachtsmen at the new Havana Biltmore Yacht and Country Club which was a demonstration of the wonderful hospitality displayed by the Cuban sportsmen.

Summaries of the races follow:

PAN-AMERICAN REGATTA AT HAVANA, CUBA
March 30 and 31

151 *Hydroplanes—3 Heats—Cuban National Tourist Com. Cup*

Position.	Name of Boat.	Owner
1	Miss California	Dick Loynes
2	Havana II.	Ramon Suero
3	Smiling Dan VI.	Dick Loynes

Outboards, Class C—2 Heats—Yachtman's Trophy

1	Sea Horse	Dick Pope
2	Lookin' Back Kid	Malcom Pope
3	Subosa	Pascual de Rojas

Outboards, Free for All—2 Heats—Hotel Plaza Cup

1	Faw Down, Go Boom	Fred Proctor
2	Blue Diamond	Carl Fay
3	Lookin' Back Kid	Malcom Pope

Biscayne Baybies—2 Heats—Cuban National Tourist Com. Cup

1	B. B. No. 23	Chas. Pease
2	B. B. No. 15	Gibson Bradfield
3	B. B. No. 12	Paul Prigg

Stock Runabouts (Changed to Runabout)—2 Heats—Auto Club of Cuba Cup

1	Mater V.	Miguel Macias
2	Hautey	Rafael Posso

Grand Free for All—2 Heats—Mayor Miguel Gomez Cup

1	Hautey	Rafael Posso
2	Biscayne Baybie	Chas. Pease
3	Smiling Dan	Dick Loynes

Race for Cuban Boats—American Legion Cup

1	Mater V.	Miguel Macias
2	Hautey	Rafael Posso

Alemendares River to Malecon Race—General Machado Cup

1	Baby Buckeye	Gibson Bradfield
2	Mater V.	Miguel Macias
3	Biscayne Baybie No. 23	Chas. Pease

Chance Race—1 Heat

1	Mater V.	Miguel Macias
2	Biscayne Baybie No. 23	Chas. Pease

NEW MILLION DOLLAR DIESEL YACHTS

Coincident with the recent contract award of the $1,250,000 yacht for Sir Richard A. Cooper, prominent London yachtsman, comes the news that the designers, Cox and Stevens, of New York, have completed the plans for another equally pretentious craft. The owner, whose name has not been divulged, is prominent in yachting circles and is well-known as a capitalist in the automotive industry. Work on the new craft has begun at the yard of Pusey & Jones at Wilmington, Delaware, delivery being scheduled for the coming autumn. She is to be of steel construction, built according to the strongest structural rules with a length of 204 feet and a beam of 28 feet. Two six cylinder 500 h. p. Winton engines will provide a comfortable cruising speed.

Unusual equipment in the way of auxiliary power has been installed and a unique feature of the engine installation is the synchronization of the propeller shafts by an electrical device. Deck house is to be of steel and decks, rails and trim of teak. Sumptuous accommodations have been provided throughout the craft, with no detail over looked for maximum comfort and convenience.

Word is also received concerning the launching of the yacht Lone Star, owned by G. B. Browne of New York and the successful trial run of Amida, recently completed for E. R. Baker of Erie, Pa. Both of these are from Cox and Stevens designs and represent an expenditure of a million and a half dollars.

Amida, the larger of the two is 195 feet over all and had her trial run over the proving grounds for vessels built in the port of the clipper bow, counter stern, and continuous sheer type, powered with a pair of 800 h. p. diesel engines which gave her a cruising speed of 13 knots.

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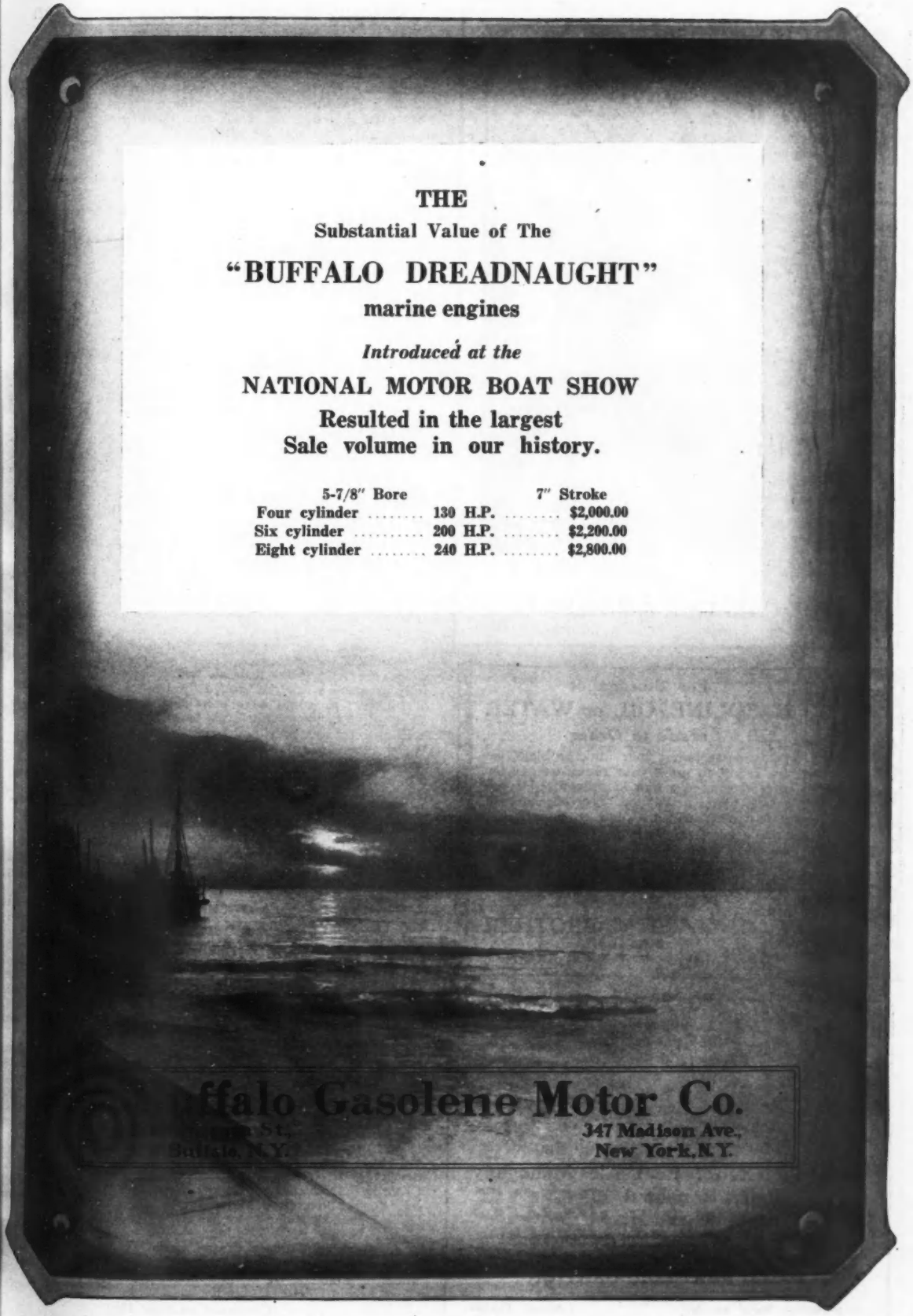
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Substantial Value of The
"BUFFALO DREADNAUGHT"
marine engines
Introduced at the
NATIONAL MOTOR BOAT SHOW
Resulted in the largest
Sale volume in our history.
5-7/8" Bore
7" Stroke
Four cylinder ..... 130 H.P. $2,000.00
Six cylinder ..... 200 H.P. $2,200.00
Eight cylinder ..... 240 H.P. $2,800.00
ffalo Gasolene Motor Co.
347 Madison Ave.,
New York, N.Y.

MARBLEHEAD
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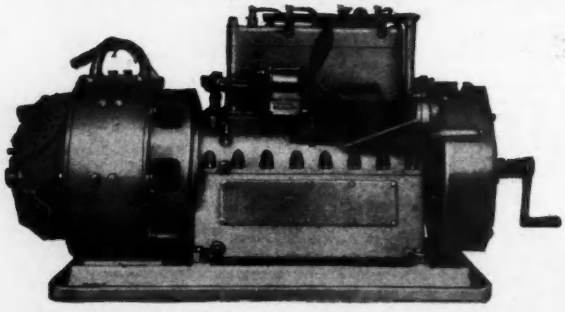

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Outboards, Class C—2 Heats—Yachtman's Trophy

1	Sea Horse	Dick Pope	72
2	Lookin' Back Kid	Malcom Pope	42
3	Subosa	Pascual de Rojas	30

Outboards, Free for All—2 Heats—Hotel Plaza Cup

1	Faw Down, Go Boom	Fred Proctor	60
2	Blue Diamond	Carl Fay	40
3	Lookin' Back Kid	Malcom Pope	40

Biscayne Baybies—2 Heats—Cuban National Tourist Com. Cup

1	B. B. No. 23	Chas. Pease	70
2	B. B. No. 15	Gibson Bradfield	60
3	B. B. No. 12	Paul Prigg	40

Stock Runabouts (Changed to Runabout)—2 Heats—Auto Club of Cuba Cup

1	Mater V.	Miguel Macias	80
2	Hautey	Rafael Posso	72

Grand Free for All—2 Heats—Mayor Miguel Gomez Cup

1	Hautey	Rafael Posso	72
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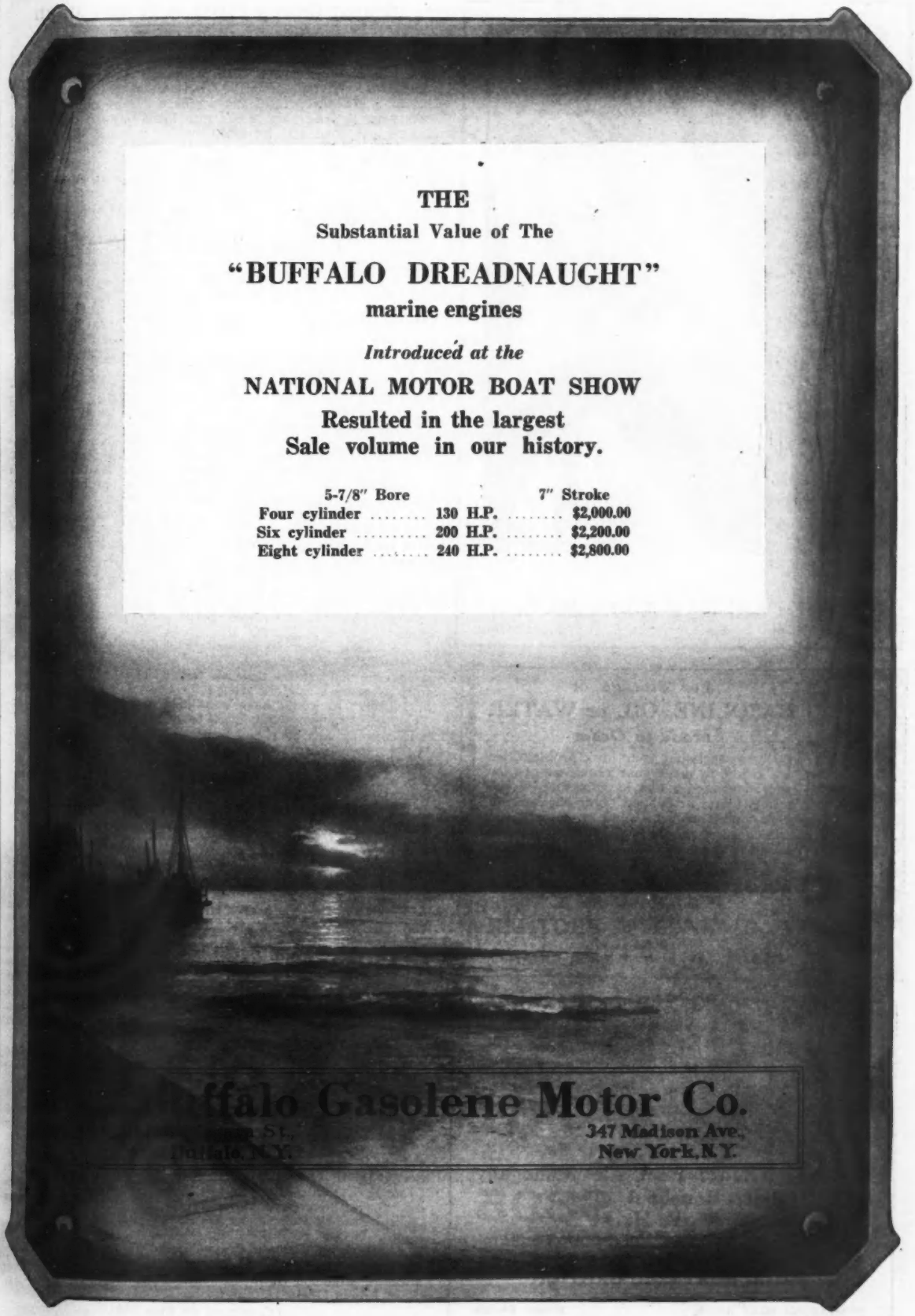
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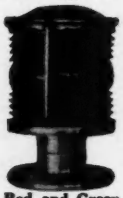
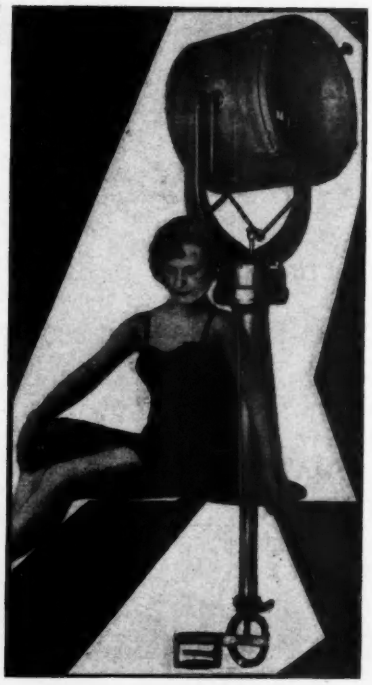
ffalo Gasolene Motor Co.
347 Madison Ave.
New York, N.Y.

SEARCH LIGHTS

Every improvement has been incorporated in these lights, and they are strong and rugged and project a powerful beam of light to great distances. Send for Catalog I of Incandescent Searchlights; Catalog A of Arc Searchlights.



Red and Green Running Lights



19" Incandescent Searchlight

THE CARLISLE & FINCH CO.
261 East Clifton Avenue Cincinnati, Ohio

TANKS

For Storage of
GASOLINE, OIL or WATER
Made to Order

No matter what your tank problem, we are ready to meet your requirements for special shaped tanks in galvanized steel, monel metal or copper. Our engineering department will be glad to assist you. Also a large supply of standardized tanks in many sizes carried in stock for prompt shipment.

RUDDERS, STACKS, SPECIAL WORK GALVANIZING

L. O. KOVEN & BROTHER
Incorporated
154 Ogden Avenue Jersey City, N. J.

New PRIGG 20 Foot All-Mahogany Six-Cylinder Runabout Seats Six—30 M. P. H. $895

Compares in all essential qualities to boats selling at twice its price. Handles like an auto due to Prigg's patent gear reduction box for adapting high-speed motors to marine use. Send for particulars of full new Prigg line.

PRIGG BOAT CORPORATION
H. PAUL PRIGG, President
17 McAllister Hotel Arcade, Miami, Florida

Miami Beach Host to Yachtsmen

(*Continued from page 32*)

hour. Miss America finished the second lap with a total time of 3 minutes, 41 seconds. Miss England's time was 3 minutes, 52 seconds. At the speed they were going this represented a lead of a little over 1,000 feet at the end of 4 miles.

As Miss America was going into the first turn on the third lap, a great howl was let loose by the crowd. Miss America had stopped! In another instant Miss England had gone into the lead—the first time that a foreign boat had led an American in an International Unlimited race in more than 10 years. Major Segrave slowed down slightly to see if Miss America was in serious trouble but as she was not, he continued on his course, completing the third, fourth, fifth and sixth laps alone.

Miss America did not start again in the first heat. Presently Commodore Wood sent word over to the Committee that his quadrant had broken and that he would withdraw from the heat but would be ready for the next heat on the following day. This cost Miss America her points as she failed to finish, making the score at the end of the first race, Miss England 400, Miss America VII, 000. Miss England's time for the 12 miles was 12:09.38, which is at the rate of 59.23 miles per hour, not a record by far, yet a very good speed for a 2-mile course.

Miss England's victory in the first heat was hailed with great rejoicing. Major Segrave was heartily congratulated by the vast throng of yachtsmen present. Soon after he finished, he talked over the radio through the 50-station hook-up to all parts of the United States. He paid a warm tribute to Commodore Wood and the sportsmanship of American yachtsmen.

After Miss England had returned to her boathouse and an examination made of her, it was found that her light construction had not been strong enough to withstand the shock of the water on the bottom of the boat during the race. A large number of frames were found to be broken, causing the planking to open up for a considerable distance near the chime. This did not sound so good for next day's events but the Major announced that he would be in the race even if he sank in the attempt.

During most of the night Gar Wood and his crew worked on Miss America VII. By early morning they had repairs made. Before breakfast, Miss America was running around the course and her owner pronounced her perfect.

When the second heat was called conditions and settings were even more ideal than on the previous day. There were fully as many spectators around the course and as many yachts at anchor. It would have been hard to find room for more. The weather, too, again was beautiful.

Everything was perfect except the race itself, for in this Gar Wood announced that in this heat he was going out to win—and win he did. Miss England had to take it easy all the way due to her weakened condition. At one time the water poured in so fast that she almost stopped but Major Segrave at the wheel, did not give up. Although she finished more than a complete lap astern of Miss America, yet all she had to do to win was to finish.

Miss America's time for the second heat was 11 minutes, 45.6 seconds, which is at the rate of 61.27 miles per hour. Miss England's time was 12 minutes, 9.38 seconds, or 42.76 miles per hour.

While the International match race between Miss America VII and Miss England was the feature event at the Miami Beach regatta this winter, yet it was not the whole show by a whole lot. Some 55 events were held for all types of craft and the entry list was well over 200. Competition was keen in every event. Over 200 yachtsmen from all parts of the country served on the General Race Committee and assisted in making the regatta one of the biggest successes ever held anywhere in this country. Such nationally known yachtsmen headed and served on the various sub-committees as C. W. Chase, Jr., Carl G. Fisher, Commodore A. A. Schantz, Jesse Jay, Commodore George Harrison Phelps, Mayor E. G. Sewell, General R. H. Tyndall, Dr. F. D. Felt, H. B. Kenyon, E. V. Webb, Dr. P. G. Becker, Commodore R. M. Massey, Dr. C. J. Roche, Commodore H. R. Duckwall, Commodore Mark Hanna, Allen Hudson, Commodore C. F. Kotcher, Commodore Robert Oakman, W. J. Conners, O. J. Mulford, W. E. Metzger, Commodore Rafael Posso, T. R. Finucane, Colonel E. H. R. Green, P. M. Gelatt, Ed Grasselli, John H. Levi, Howard W. Lyon, E. J. Noble, E. C. Romph, Commodore Charles A. Sorenson, O. E. Sovereign, Major H. O. D. Segrave, Commodore H. B. Greening, Commodore W. B. Selby, William Sturm, Commodore Walter B. Wilde, John H. Ware, Jr., L. J. Woodbury, J. R. Becknell, Captain Frank Smith, R. A. Barry, Guy W. Ashley, Paul H. Trigg, Dick Pope, Colonel G. F. Bailey, C. C. Matlack, Commodore M. Rosenfeld, W. L. Philbrick, Robert Clow, Edwin Odette, Hollis Bush, F. C. Benedict, Joseph Cope.

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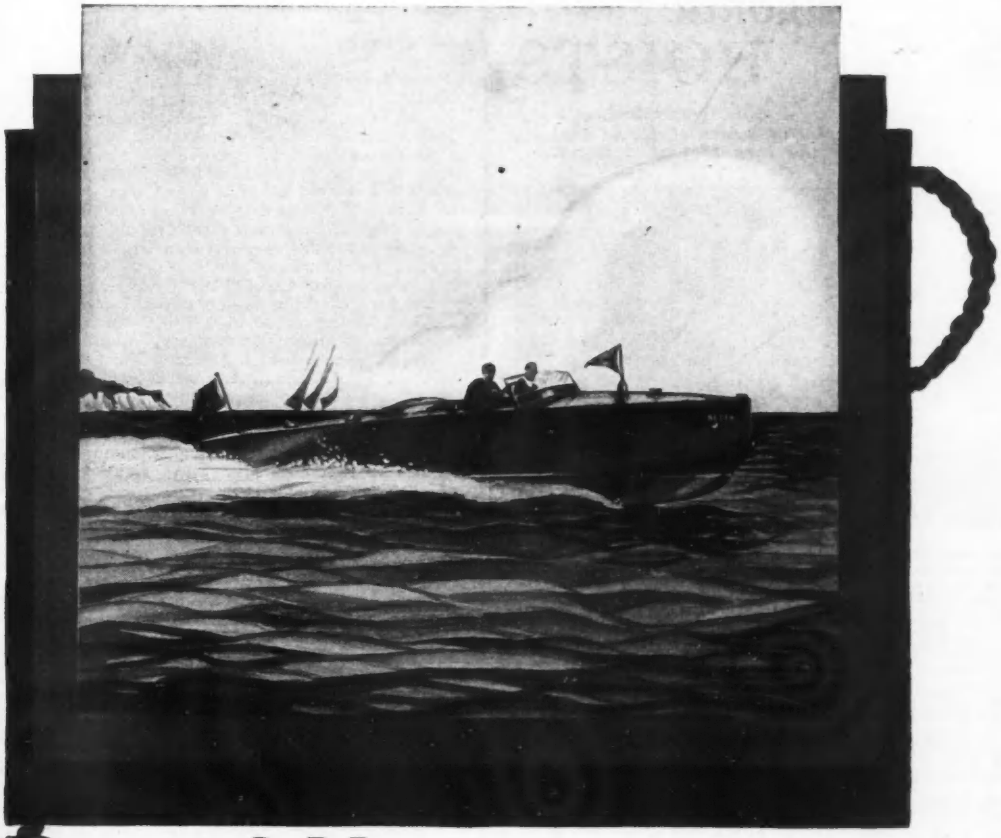

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Miami Beach Host to Yachtsmen

(*Continued from page* 144)

Steve Hannagan, Jack Bell, Fred Fiddler, Larry Smits, Hamilton Wright, Jr., T. J. Pancoast, C. W. Chase, Sr., Ira Hand, Captain Frank Henning, Charles Krom, George Krom, H. H. Mase, Arthur J. Pancoast, B. Phelps, Odis Porter, H. H. Filer, F. P. Huckins, T. E. Myers, Harrison H. Phelps, Commodore E. B. Treat, Colonel H. M. Bankhead, Edgar Louis Keuling, Robt. McAllister and many others.

In the other events, the greatest number of entries appeared for the outboard classes, in which there were over 150 different boats and drivers entered. Races were provided for Classes A, B, C, D and E and each of them filled fairly well. The greatest interest centered in the race for the Colonel E. H. R. Green Trophy, in which there were over 50 entries, 28 of which actually started the first heat.

The rules for the Colonel Green trophy had been changed since last year; this season it represented the Unlimited Free-For-All Championship of North America. There were no restrictions on piston displacements, owner, or driver, and motors were not required to be stock. The Colonel Green trophy is without a doubt the most valuable and most sought after trophy of any prize for outboard competition. The drivers were present from all sections of the country with outfits which they had especially prepared for months back for this race. Therefore, it was not strange that the competition in this class should have been very keen.

That veteran and daring outboard driver, Malcolm Pope, of Winter Haven, Florida, who for the past two years has unsuccessfully tried to win the Colonel Green Trophy and last year had succeeded in winning the first heat only to finish third or fourth in the second heat, this year successfully finished in first place in both heats. However, he was hard pushed by King Bee, owned and driven by Julius Herbst of Wilmington, North Carolina, who finished in second position. Both Mr. Pope and Mr. Herbst used Johnson Class D motors. Flash IV, owned by E. T. Ludington, finished in third place. A complete summary of the Colonel Green Trophy race will be found on page 152.

The race for Class A was won by Tar Baby, owned and driven by Julius T. Herbst of Wilmington, N. C., with Willkie's Baby, driven by J. E. Wilkinson of Boston, finishing second. Both boats were Herbst built Lockwood powered.

In Class B, Division I, the winner was Lee's Caille, owned by M. Lee of Miami. Second place went to Hooh, owned by C. R. Hyatt, and Henry Taylor, driivng Black Magic, finished in third position. The boats finishing both first and second were powered with Caille Class B motors.

In Class B, Division II, Mrs. Genevieve Atwood, driving Orange Blossom, finished in first place, with Lee's Caille in second and Radio Bug, owned by W. D. Hoffman, in third place. All three winners used Caille Class B motors.

Flash IV, owned by W. J. Hyatt, was the winner of Class C, Division I. The boat driven by C. A. Sawyer, finished in second place and G-Bo-J-II, owned by G. Strom, finished third. All of these boats were powered with Evinrude motors.

In Class C, Division II, competition was very keen. This event, which consisted of two 3-mile heats, was won by Flash IV, entered by E. T. Ludington, a Ludington boat, Evinrude powered. Second place was taken by Flash V, entered by W. J. Hyatt, also a Ludington craft with an Evinrude motor. Third position was taken by Bullet, driven by J. B. Maypole, powered with a Johnson motor. Altogether eleven boats finished in this event.

Class D, Division II, was won by King Bee, owned and driven by Julius T. Herbst, a boat of his own design and construction, powered with a Johnson motor. Bullet, driven byJ. B. Maypole, finished second and Wildcat, driven by F. E. Johnson, finished third. All of these boats were powered with new Johnson Class D motors.

In Class E, Division II, Malcolm Pope, driving his Lookie-back Kid, took first place with a Johnson motor. Bullet, driven by D. Upsall, finished second and Sea Horse, driven by J. Kerr, finished in third place.

Five Biscayne Babies participated in the three heats for the Governor of Florida Trophy. As he has been doing during the last several years, Paul Prigg, driving his Scripps powered Biscayne Baby No. 12, finished in first position as the result of the three heats and will hold the Governor Martin Trophy for another year.

Pirate, owned by N. C. Graham and driven by Captain Joe Kinney, took first place in the Express Cruiser Free-for-All, as well as in the Express Cruiser Handicap event, both of which were 6-mile races. Shadow H, owned by Carl G. Fisher, was second in the express cruiser handicap with Gar Sr. II in third place. Gar Sr. finished in second place in the Express Cruiser Free-for-All, Shadow H was third and Furlough, owned by P. M. Gelatt, finished in fourth position.

(*Continued on page* 154)

Advertising index will be found on 3rd last page

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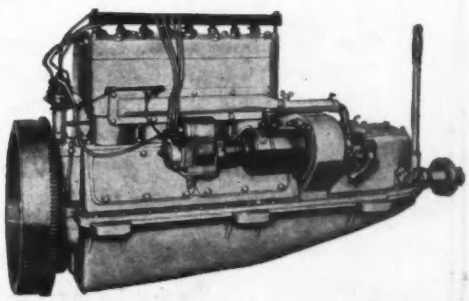

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MIAMI BEACH REGATTA

March 20-21, 1929

CLASS B—DIVISION I (3 MILES)

Racing No.	Boat	Owner	Time 1st Heat	Time 2nd Heat	Best Speed	Position	Motor
F-13	Lees Caille	M. Lee	7:06.40	6:42.82	26.81	1	Caille
30	Hooh	C. R. Hyatt	7:42.38	7:33.34	23.82	2	Caille
101	Black Magic	H. Taylor	7:36.38	8:01.13	23.62	3	Lockwood
L-1	No Name	L. G. Brightmire	9:02.64	7:48.19	23.07	4	Caille

CLASS B—DIVISION II (3 MILES)

Racing No.	Boat	Owner	Time 1st Heat	Time 2nd Heat	Best Speed	Position	Motor
F-319	Wild Cat	F. E. Johnson	6:18.80	DNS	....	..	Johnson
F-50	Orange Blossom	G. Atwood	6:08.54	7:15.52	29.31	1	Caille
F-13	Lees Caille	M. Lee	6:44.51	7:32.99	26.70	2	Caille
08-431	Super DeLuxe	T. Chestnut	7:00.72	DNF	25.7	..	Evinrude
F-89	Radio Bug	W. D. Hoffman	7:04.52	7:33.30	25.44	3	Caile
F-300	Goofy Jr.	J. A. Wilson	7:19.91	DNF	24.5	..	Lockwood
501			7:57.22	DNF	22.6	..	
30	Hooh II	C. R. Hyatt	7:39.15	DNF	23.5	..	
38	Hava Tampa	Cal Meloon	7:55.58	DNF	22.7	..	Caille
F-311	Bullet	S. B. Maypole	DNS	6:29.42	27.7	4	Johnson

CLASS C—DIVISION 1, 3 MILES

Racing No.	Boat	Owner	Elapsed Time Heat	Speed	Position	Motor
504	Flying Cracker	P. Pence	DNF	....	..	Evinrude
102		J. Cooper	DNF	....	..	
F-1	Russ Jr.	R. S. Firestone	DNF	....	..	Evinrude
F-335	Flash IV	W. J. Hewitt	7:24.17	24.32	1	Evinrude
103	C. A. Sawyer	C. A. Sawyer	9:01.92	19.90	2	Evinrude
0-711	G-BO-J II	G. Strom	7:48.56	23.05	3	Evinrude

CLASS C—DIVISION II, 3 MILES

Racing No.	Boat	Owner	Time 1st Heat	Time 2nd Heat	Best Speed	Position	Motor
F-311	Bullett	J. B. Maypole	6:08.22	7:01.05	29.33	3	Johnson
OC-476	Curtis DeLuxe	M. Waller	6:14.63	DNS	28.85	6	Evinrude
24	Black Magic	R. Firestone	6:35.63	DNS	27.22	7	
F-335	Flash V	W. J. Hewitt	6:46.70	6:25.59	27.99	2	Evinrude
500	Flash IV	E. R. Ludington	6:47.37	6:12.83	28.97	1	Evinrude
F-13	Lees Caille	M. Lee	6:47.37	6:52.38	26.45	5	Caille
F-1	Russ Jr.	R. S. Firestone	DNF	DNS	....	..	Evinrude
504	Flying Cracker	P. Pence	7:56.10	6:37.65	27.16	4	Evinrude
319	Wild Cat	F. E. Johnson	7:21.66	Disqualified	24.5	11	Johnson
08	Spencer's Special	W. C. Sherman	DNS	6:36.92	27.2	8	Johnson
0-711	G-Bo-J-II	J. Strom	DNS	6:46.10	26.6	9	Evinrude
08-741	Faw-Down-Go-Boom	F. W. Proctor	DNS	6:50.05	26.3	10	Evinrude

CLASS D—DIVISION II—3 MILES

Racing No.	Boat	Owner	Time 1st Heat	Time 2nd Heat	Speed	Position	Motor
Z-23	Kingbee	J. T. Herbst	—	6:04.99	29.59	1	Johnson
F-311	Bullett	J. B. Maypole	—	6:09.21	29.26	2	Johnson
F-319	Wildcat	F. E. Johnson	—	6:19.69	28.44	3	Johnson
O-154	Bullett	J. Upsall	2:59.77	6:33.79	27.43	4	Johnson
F-335	Flash V	W. J. Hewitt	—	6:34.49	27.38	5	Evinrude

CLASS E—DIVISION II, 3 MILES

Racing No.	Boat	Owner	Elapsed Time	Speed	Position	Motor
F-14	Lookinback Kid	M. Pope	5:30.94	32.63	1	Johnson
O-154	Bullet	D. Upsall	5:37.10	32.04	2	Johnson
F-16	Sea Horse	J. Kerr	5:38.44	31.91	3	Elto
Z-23	Kingbee	J. T. Herbst	5:47.82	31.05	4	Johnson
O-76	White Diamond	J. Patterson	6:35.23	27.33	5	Evinrude
F-311	Bullett	J. B. Maypole	6:37.25	27.19	6	Johnson
F-18	Miss Geneva	L. Cracraft	6:41.13	26.92	8	Elto
F-319	Wild Cat	F. E. Johnson	6:37.88	27.14	7	Johnson

CLASS A—DIVISIONS I and II, 3 MILES

Racing No.	Boat	Owner	Time 1st Heat	Time 2nd Heat	Best Speed	Position	Motor
Z-1	Tar Baby	J. T. Herbst	9:46.49	10:08.67	18.42	1	Lockwood
B-1	Wilkie's Baby	J. E. Wilkinson	9:58.64	DNF	18.04	2	Lockwood
N-116	Chip II	Wood Bros.	10:28.77	DNS	17.15	4	Lockwood
F-36	Hava Tampa	Cal Meloon	DNS	12:32.70	14.35	3	Lockwood

(*Continued on page 152*)

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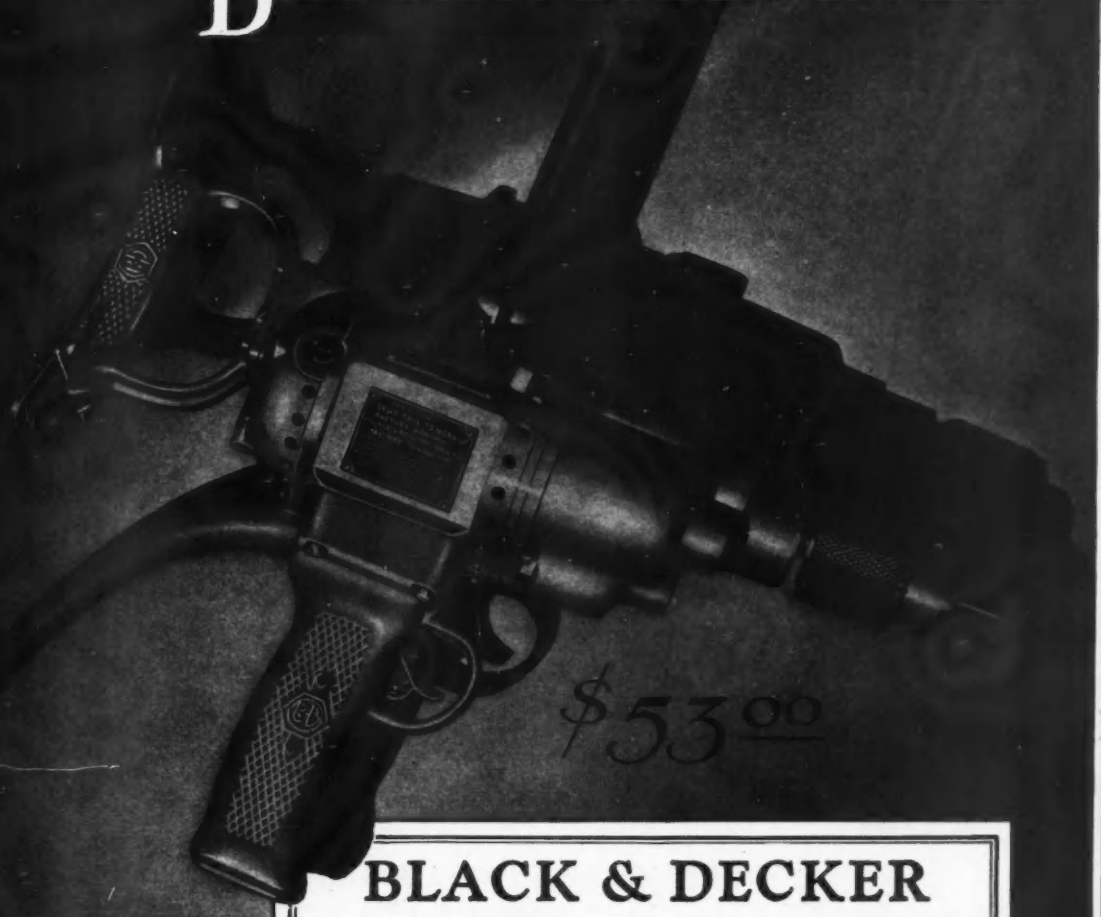

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MIAMI BEACH REGATTA

March 20-21, 1929

(*Continued from page* 150)

COLONEL GREEN TROPHY RACE, 4½ MILES

Racing No.	Boat	Owner	Time 1st Heat	2nd Heat	Best Speed	Position	Motor
F-14	Lookinback Kid	M. Pope	8:35.68	8:40.71	31.42	1	Johnson
O-154	Bullet	D. Upsall	DNF	9:42.80	27.80	7	Johnson
F-99	Frasers Bullet	H. M Fraser	DNF	DNS	—	—	Johnson
Z-23	Kingbee	J. T. Herbst	9:03.39	8:44.52	30.89	2	Johnson
500	Flash IV	E. T. Ludington	9:43.21	9:45.12	27.78	3	Evinrude
F-319	Wildcat	F. E. Johnson	10:10.13	DNF	26.55	11	Johnson
W-30	Silver Streak	J. S. Gelatt	9:44.59	DNF	27.71	8	Evinrude
F-335	Flash V	W. J. Hewitt	10:01.86	DNF	26.92	10	Evinrude
O-76	White Diamond	J. Patterson	DNF	9:25.25	28.66	6	Elto
F-16	Sea Horse	J. Kerr	9:47.59	DNF	27.57	9	Elto
26	Nay Nay II	B. E. Lamb	12:02.17	DNF	22.43	17	Evinrude
O8	Spencer Special	W. C. Sirman	12:55.44	DNF	20.89	18	Evinrude
O8-431	Super DeLuxe	T. Chestnut	10:27.03	DNF	25.84	12	Evinrude
F-311	Bullet	J. B. Maypole	10:32.62	DNF	25.61	5	Johnson
OC-476	Curtis DeLuxe	M. Waller	8:53.14	DNF	30.97	19	Evinrude
O-77	Blue Diamond	Carl Fay	10:49.58	10:40.60	25.29	4	Evinrude
O-734	Lightning	E. Gresh	DNF	DNF	—	—	Evinrude
F-1	Russ Jr.	R. S. Firestone	11:11.78	DNF	24.12	15	Evinrude
F-3	Miss Lillian	J. Brockley	DNF	DNF	—	—	Elto
44	Miss Lillian III	W. M. Chancellor	10:57.18	DNF	—	13	Johnson
102	—	—	11:06.56	DNF	24.30	14	—
X-11	—	C. W. Fuller	11:32.86	DNF	23.38	16	Evinrude

BISCAYNE BABY EVENT, 6 MILES

Racing No.	Owner	Time 1st Heat	2nd Heat	3rd Heat	Speed	Position	Motor
12	Paul Prigg	9:51.73	9:48.35	10:58.95	36.71	1	Scripps
23	Charles Pease	10:59.97	10:29.65	10:10.69	35.37	2	Scripps
11	C. G. Fisher	11:13.46	10:23.39	10:16.88	32.78	3	Scripps
15	Gibson Bradfield	11:51.63	11:14.77	11:17.90	32.01	4	Scripps

EXPRESS CRUISER HANDICAP, 6 MILES

Boat	Owner	Elapsed Time	Speed	Position
Pirate	R. C. Graham	11:49.68	22.83	1
Shadow	C. G. Fisher	11:52.20	22.75	2
Gar Sr. II	Gar Wood	12:03.74	22.38	3

EXPRESS CRUISER FREE FOR ALL, 6 MILES

Boat	Owner	Elapsed Time	Speed	Position
Pirate	R. C. Graham	10:21.18	34.77	1
Gar Sr.	Gar Wood	10:26.08	34.50	2
Shadow H	C. G. Fisher	12:01.00	29.96	3
Furlough	P. M. Gelatt	12:41.27	28.37	4

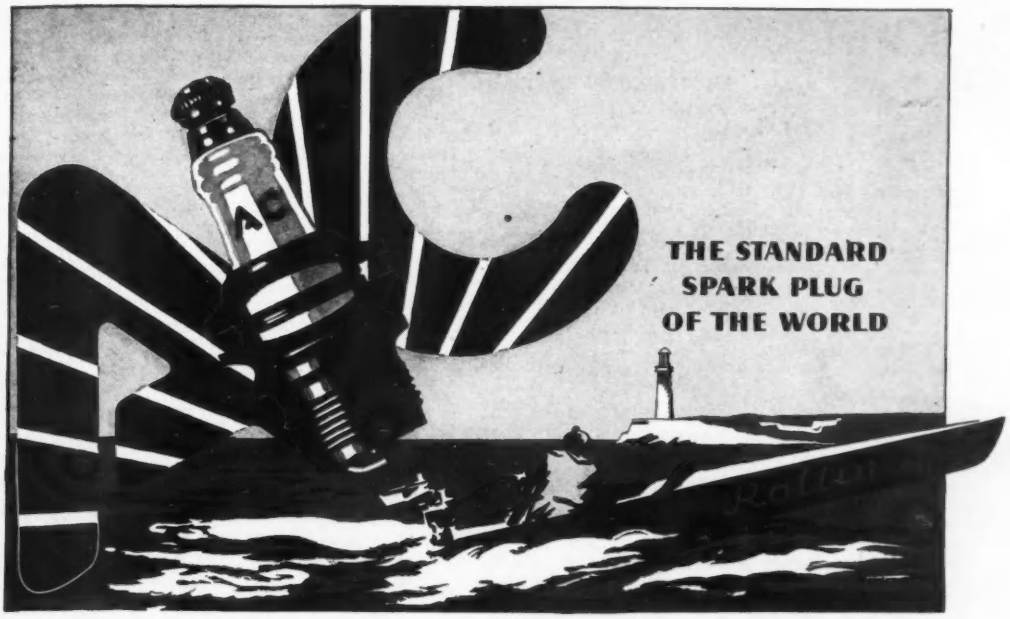
MISS ENGLAND VERSUS MISS AMERICA, 12 MILES

Boat	Owner	First Heat Lap Time	Speed	Second Heat Lap Time	Speed
Miss America VII	Gar Wood	Lap 1—1:50.85	64.95	Lap 1—1:54.60	62.83
		2—1:50.19	65.14	2—1:57.08	61.50
		3—DNF	—	3—1:58.70	60.66
		4—DNF	—	4—1:59.33	60.34
		5—DNF	—	5—1:57.35	61.35
		6—DNF	—	6—1:58.99	60.51
	(Time, 12 Miles)			11:45.07	61.27
Miss England	H. O. D. Segrave	Lap 1—1:57.84	61.10	Lap 1—2:19.81	51.50
		2—1:54.20	63.05	2—2:15.57	53.11
		3—2:17.31	52.44	3—2:10.80	55.05
		4—2:01.63	59.20	4—4:07.76	29.06
		5—2:67.99	56.25	5—3:12.51	37.40
		6—2:10.41	55.21	6—2:43.85	43.92
	(Time, 12 Miles)	12:09.38	59.23	16:50.40	42.76

151 HYDROPLANES—LIMITED, 4½ MILES

Racing No.	Boat	Owner	Time 1st Heat	2nd Heat	Best Heat Speed	Position
B-51	Miss California	Dick Loynes	7:16.39	7:17.29	37.12	1
B-1	Smiling Dan IV	Dick Loynes	7:35.75	7:21.91	36.66	2
B-188	Baby Tarpon	Robert Ringling	7:40.70	7:31.31	35.90	3
B-150	Miss Ricochet	F. Luckenback	8:03.14	7:56.39	34.01	5
B-182	Habana II	R. Suerra	8:14.43	7:23.05	36.57	4

(*Continued on page* 150)



To make it a better engine put in the right spark plugs

YOUR marine engine falls into one of four classifications, for each of which there is a special type of AC Spark Plug. The kind of service determines the type of spark plug to be used.

1. High speed, high compression marine engines, operating at high temperatures—AC Type "AM" ⅞" Regular Marine, or Type "GM" Metric Regular Marine.
2. For high speed outboard or inboard racing engines—AC Type "G"2½ Metric Regular or "A"2½ ⅞" Regular.
3. Boats equipped with automobile engines operating at fairly high speeds, compressions and temperatures, as well as outboard engines for cruising speeds—AC Type "Y" ⅞" Semi-aircraft or Type "N-1" Metric Semi-aircraft.
4. Slow speed, large bore marine engines, operating at ordinary compressions and temperatures—AC Type "Q" ½" Long; AC Type "A" ⅞" Regular, or AC Type "G" Metric Regular.

Your dealer will gladly advise you in selecting for your engine the correct type of AC Spark Plugs. They are available everywhere. They are proved, by every test, or land, water and in the air, *standard of the world.*

AC-SPHINX
Birmingham
ENGLAND

AC Spark Plug Company
FLINT, *Michigan*

AC-TITAN
Clichy (Seine)
FRANCE

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AC INSTRUMENT PANELS AC TACHOMETERS AC THERMO GAUGES AC AMMETERS
AC OIL PRESSURE GAUGES AC AIR PRESSURE GAUGES AC OIL FILTERS

MIAMI BEACH REGATTA

March 20-21, 1929

(*Continued from page* 152)

151 HYDROPLANES—UNLIMITED, 4½ MILES

Racing No.	Boat	Owner	Time 1st Heat	Time 2nd Heat	Best Heat Speed	Position
B-135	Sparrow	E. H. Johnson	4:46.17	DNS	37.74	2
B-182	Habana II	R. Suerra	4:59.42	7:06.54	36.07	3
B-1	Smiling Dan IV	Dick Loynes	4:58.97	7:03.95	36.12	1
B-116	Miss Rioco III	Ralph Snoddy	5:59.09	DNS	30.08	5
B-142	Buckeye	Mr. G. Bradfield	6:06.65	DNS	29.46	6
B-150	Miss Ricochet	L. Luckenback	6:48.15	DNF	26.47	7
B-188	Baby Tarpon	Robt. Ringling	6:29.49	7:11.74	27.73	4

RUNABOUTS—NOT OVER 110 H. P.

Racing No.	Boat	Owner	Time 1st Heat	Time 2nd Heat	Best Speed	Position	Motor
7	Jolly Rover	Comm. Masseur	8:59.98	9:24.26	30.00	1	Kermath
812-P	Prigg	Paul Prigg	12:41.21	8:29.53	31.79	2	Gray
F-9	Cadet	R. M. Massey	9:08.80	9:36.05	29.52	3	Chrysler

RUNABOUTS—NOT OVER 160 H. P.

Racing No.	Boat	Owner	Time 1st Heat	Time 2nd Heat	Best Speed	Positions	Motor
5	Janet	R. McFadden	8:31.72	8:39.37	31.66	1	Kermath
6	Jane	Mrs. B. S. McClure	9:21.54	8:55.56	30.25	2	Chrysler
12-P	Prigg	Paul Prigg	—	8:28.46	31.86	3	Gray
A-1	Tootsie-G	James Gelatt	9:36.50	—	28.10	4	Chrysler

RUNABOUTS—NOT OVER 200 H. P.

Racing No.	Boat	Owner	Time 1st Heat	Time 2nd Heat	Best Speed	Position	Motor
F-8	G-Bo-J II	G. A. Strom	7:34.15	7:44.54	35.67	1	Chris-Craft
8	Miss Elizabeth II	R. S. Firestone	7:57.59	7:39.34	35.27	2	Scripps
5	Janet	Roy McFadden	8:28.43	8:38.25	31.86	3	Kermath
6	Jane	Mrs. B. S. McClure	9:06.42	8:34.20	31.51	4	Chrysler
12-P	Prigg	Paul Prigg	—	DNF			

RUNABOUTS—NOT OVER 250 H. P.

Racing No.	Boat	Owner	Time 1st Heat	Time 2nd Heat	Best Speed	Position	Motor
8	Miss Elizabeth II	R. S. Firestone	7:49.43	7:39.43	35.26	1	Scripps
F-8	G-Bo-J II	G. A. Strom	7:45.65	7:43.84	34.93	2	Chris-Craft
6	Jane	Mrs. B. S. McClure	9:01.12	8:23.50	32.17	3	Chrysler

ONE MILE TRIALS
CLASS D OUTBOARDS

Fraser's Bullet, driven by Harrison Fraser, Auburndale, Florida, Boyd Martin Boat, Class D Johnson motor.

Run No.	Time	Speed
1	1:23.20	43.27
2	1:20.99	44.45
3	1:23.73	42.96
4	1:20.95	44.47
5	1:24.26	42.73
6	1:20.61	44.66

Average speed 43.76* m. p. h.

*New American Outboard Record.

UNLIMITED HYDROPLANES

Miss America VII, owned and driven by Gar Wood, two 1100 h. p. Packard Motors.

Run No.	Time	Speed
1	0:38.25	94.118
2	0:38.56	93.361
3	0:38.73	92.951
4	0:38.63	93.192
5	0:38.93	92.474
6	0:38.86	92.640

Average speed 93.123 m. p. h.*

* New World record.

Miami Beach Host to Yachtsmen

(*Continued from page* 146)

What should have been one of the best events of the whole regatta, the 151-inch hydroplane race, failed to create either interest or keen competition due to the failure of the owners and drivers to be on hand at the time of start. Nine 151-inch hyroplanes were present, one of the largest fields of this class which has ever been together for any race meet. In the limited class, Dick Loynes, driving his Miss California, finished first in both heats. Dick Loynes' other boat, Smiling Dan IV, took second, Baby Tarpon, entered by Robert Ringling was third, Habana II, which came over from Havana to compete at Miami, driven by R. Suerra, was next and Miss Ricochet was last in the limited division.

There were seven starters in the first heat for the 151-inch hydroplane unlimited class. Smiling Dan IV finished in first position, with Sparrow, owned and driven by Elmer H. Johnson, taking second. Sparrow won the first heat with little difficulty but was unable to start in the second heat due to trouble which developed with the boat's bottom. Habana II was third on points. Baby Tarpon II, Miss Ricochet II, Buckeye, owned by Gibson Bradfield, and Miss Ricochet finished in the order mentioned.

The classes for runabout brought out some very interesting craft which provided interesting competition. In the 110-horse power runabout class, first prize on points was taken by Jolly Rover. Paul Prigg, with his new runabout powered with a 100-horse power Gray motor, won first place in the second heat and made the best time of the regatta in this class, finishing the heat with a speed of 31.794 miles per hour to his credit, a very good performance for a 100-horse power runabout.

In the 160-horse power runabout class, Janet, owned by R. MacFadden, a Kermath powered boat, finished in first position on points, with Jane, entered by Mrs. McClure, in second place. Paul Prigg, with his 100-horse power Gray powered runabout, made the best heat speed in this class also, averaging the second heat at the rate of 31.86 miles per hour. Mr. Prigg was not able to start in the first heat and on account of loss of points, was only able to finish third in the final scoring.

The race for 200-horse power runabouts consisted of two 4½ mile heats. The first was won by G-Bo-J-II, owned by G. A. Strom, a Chriscraft, powered with a 200-horse power Chriscraft motor, and the second heat was won by Miss Elizabeth II.

(*Continued on page* 156)

28-FOOT CHRIS-CRAFT De Luxe Cabin Sedan is but one of many models manufactured by this company whose standard equipment includes Exides.

Yachts . . . speed boats
Require dependable batteries

ONLY the best equipment and materials go into famous Chris-Craft. Following this policy, Chris Smith and Sons Boat Company use Exide Batteries to *reliably* fill every electrical requirement of their boats.

More and more owners and builders of pleasure craft are choosing Exide and Exide-Ironclad Yacht Batteries. For starting, lights, hoists, refrigeration, pumps, radio and other purposes Exides are an unfailingly *dependable* source of power.

The Exide-Ironclad has unique positive plates, made up of slotted rubber tubes that hold the active material in place and insure long as well as dependable service. Each cell is completely sealed.

And, best of all, little attention is required to keep Exides in perfect operating condition.

The Exide representative—one is in practically every important coast and inland port — is always ready to help you choose the right battery for your boat regardless of its size. And the Exide operating service, available in 19 cities, will gladly inspect your present Exide, and tell you how to secure from it the longest life and most efficient service.

Exide
IRONCLAD
YACHT BATTERIES

Four-Cell tray of Exide-Ironclad Marine Battery type MVA. Fifteen such trays make up a 115-volt battery.

THE ELECTRIC STORAGE BATTERY COMPANY, Philadelphia

Exide Batteries of Canada, Limited, Toronto

Now!---in your own Backyard

you can easily build

(Send for Catalog immediately.)

That boat you have always longed for can now be yours for one-third of what you would normally pay. Build it yourself—the Brooks way—and pocket the profit you would pay a boat-builder.

Just think!—a graceful, seaworthy, speedy, comfortable craft—built easily and quickly in your own garage or yard. No complicated knowledge of carpentry required. No chance to make a mistake. Simply assemble the numbered parts according to clear, simple, illustrated instruction sheets, and there's your boat—true in design, perfect in finish—built as the architect planned it.

Thousands have built boats they are proud of. Over fifty-five designs from which to choose, including Cabin Cruisers, V-Bottom Runabouts, Outboard Speedsters, Hydroplanes, Row boats and Sail boats.

Our big catalog describes these boats in detail and tells how amazingly easy it is to build them the Brooks way. **Send 10c for this book today. Act quickly. Don't lose time.** Build your boat now and be ready for the first glad days of spring.

a Cruiser

a Sail Boat

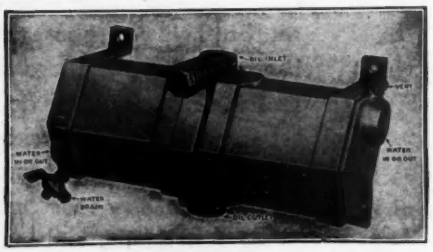
a Runabout

an Outboard Speedster

BROOKS BOAT CO., Inc.
Dept. 3-E
Saginaw (West Side) Michigan

—or most any craft your fancy desires

Brooks KNOCK-DOWN BOAT FRAMES



Patents Pending

The New

GROCO OIL COOLER

There are more Groco Oil Coolers sold in the marine field than all the rest combined.

Gross Mechanical Laboratories
1705 WEST BALTIMORE STREET
BALTIMORE, MARYLAND

Miami Beach Host to Yachtsmen

(Continued from page 154)

driven by Roger S. Firestone. Miss Elizabeth II is a Gar Wood runabout powered with a 200-horse power Scripps motor. As each boat was credited with winning a first and a second, thus establishing a tie on points, the race went to G-Bo-J II, whose combined time for the two heats was the better.

In the class for 250-horse power runabouts, the first heat was taken by G-Bo-J II and the second by Miss Elizabeth II, thus establishing a tie in this class. As Miss Elizabeth II's time for the two heats in this class was better than G-Bo-J II's total time, the race was awarded to Miss Elizabeth II.

Complete summary of results on pages 150, 152, 54.

In the Mile Trials held on the days following the competitive events, Gar Wood, driving Miss America VII, established a new world's record for one-mile, bettering his own one-mile world record established with the same boat at Detroit last September. The complete record of Miss America's six one-mile runs follows:

Unlimited Hydroplanes

Miss America VII, owned and driven by Gar Wood, two 1100 h. p. Packard motors

Run No.	Time	Speed
1	0:38.25	94.118
2	0:38.56	93.361
3	0:38.73	92.951
4	0:38.63	93.192
5	0:38.93	92.474
6	0:38.86	92.640

Average speed 93.123 m. p. h. (1)

(1) New World's Record

Where to Buy Boats in New York

(Continued from page 106)

Street; Verrier Eddy Co., 201 East 12th Street; Richard Cox, 200th Street and Hudson River

Ludington Aircraft, Inc., Outboard Boats, Bruno Beckhard, Flushing, Long Island; Oluf Mikkelsen, 115 East 23rd Street

Lyman Boat Works, Outboard Boats, Abercrombie & Fitch, Madison Avenue and 45th Street; Bruno Beckhard, Flushing, Long Island; Haynes Griffin, 41 West 43rd Street

Howard W. Lyon, Standardized Boats, 532 Lexington Avenue

The Matthews Company, Standardized Boats, Bruns, Kimball & Company, 5th Avenue at 15th Street

Maybach Motor Company, Boats and Engines, 578 Madison Avenue, New York

Mullins Mfg. Corporation, Outboard Boats (steel), Abercrombie & Fitch, 5th Avenue and 45th Street; Armstrong & Galbraith, Inc., 79 Barclay Street; Gimbel Brothers, Broadway and 33rd Street

New York Yacht Launch & Engine Co., Boats and Engines, Morris Heights

Niagara Motors Corp., Marine Engines, Boat Equipment Corp., 412 Eighth Avenue

Palmer Bros. Engines, Inc., Marine Engines, 89 Third Avenue

Penn Yan Boat Co., Outboard Boats, E. J. Willis Company, 85 Chambers St.; Wilbur H. Young & Co., 250 West 57th St.; John Wanamaker, 784 Broadway

Pigeon Hollow Spar Co., Outboard Boats, Gardner Marine Sales & Service Co., 17 State Street

Red Wing Motor Co., Marine Engines, Verrier Eddy Co., 201 East 12th Street

Regal Gasoline Engine Co., Marine Engines, Boat Equipment Corp., 412 Eighth Avenue

Richardson Boat Co., Standardized Boats, Bruns, Kimball & Co., 5th Avenue and 15th Street

Robinson Marine Construction Co., Standardized Boats, American Car & Foundry Co., 217 West 57th Street

Scripps Motor Company, Marine Engines, Holt Marine Engineering Co., 611 West 125th Street

Sea Sled Corporation, Standardized Boats, 226 Fourth Avenue

Skiboard Corporation, Skiboards, John Wanamaker, 784 Broadway; Abercrombie & Fitch Co., Madison Avenue at 45th Street; Armstrong & Galbraith, 79 Barclay Street; Wilbur H. Young, 250 West 57th Street

Standard Motor Construction Co., Marine Engines, 178 Whiton Street, Jersey City

Sterling Engine Company, Marine Engines, Bruns, Kimball & Co., 5th Avenue and 15th Street

United States Motors Corp., Marine Engines, Bowler, Holmes & Hecker Co., 259 Greenwich Street

Universal Motor Company, Marine Engines, Universal Watercraft, 44 Warren Street

Wheeler Shipyards, Standardized Boats, Foot of Harway Avenue, Brooklyn

Gar Wood, Inc., Standardized Boats, 1860 Broadway

Wright Aeronautical Corp., Marine Engines, Paterson, New Jersey

Advertising index will be found on 3rd last page

It Is Significant That The Dodge Boat Works Use Lycoming 8-In-Line Marine Motors Exclusively For Use In Their 26-Foot Runabout

Nothing *Finer* Can Be Said of Any Motor Boat Than, It is -

LYCOMING MOTORS

LYCOMING MANUFACTURING CO.
WILLIAMSPORT, PENNSYLVANIA

Lycoming Marine Engines Are Also Available To the Retail Trade

Better Performance and Greater Speed

Through the use of Morse Straight-Line Reduction Gears, maximum boat efficiency and performance are insured, with the greatest possible degree of operating economy.

Morse Straight-Line Reduction Gears embody a special application of internal gearing worked out and perfected by engineers of long experience in this phase of engineering work. They operate with unusual quietness. Their efficiency is high. They embody the desirable principle of straight-line drive. In design, material and workmanship they represent the best that is to be had in the field.

Write or wire for engineering details, dimension drawings, prices, etc.

MORSE CHAIN CO.
Detroit, Michigan

MORSE
STRAIGHT LINE
REDUCTION GEARS

STURGES ANCHOR HOIST

Makes Anchor Raising Easy

THIS simple practical device makes anchor raising the easiest job on your boat. The Sturges Anchor Hoist provides every requirement for lowering and raising the anchor with minimum manual effort. When not in use, the davit and the hoist can be unshipped, leaving only the base on deck.

The Sturges Anchor Hoist is made for any type of anchor up to 100 lbs. Sturdily built, heavily galvanized. Furnished entirely in brass at slight extra cost. The davit can be designed especially to fit your boat without extra cost.

Made in three sizes—0, 1 and 2

You will be surprised at the many features of the Sturges Anchor Hoist. Let us explain them to you. Write today for details and prices.

Easily installed by anyone without disfiguring or marring your cruiser in any way.
Davit unships here.
Windlass unships here.

Model No. 2 with 3 speed transmission, for anchors 60 to 100 lbs. The low speed gives powerful leverage for breaking the anchor loose from a mud bottom. Second speed (on which the handle is shown) is normally used for hoisting the anchor. The high speed or direct drive on main shaft is for quickly reeling in the slack of the rope. Note also the open type block on the davit which permits quick application of the service line over the pulley.

Pat. Applied For

STURGES ANCHOR HOIST
3 Kensington Road. Bronxville, N. Y.

Accuracy in Records

(*Continued from page* 128)

then taking the speeds from the 5-mile table, using the quotients resulting from the above divisions as the times. Committees planning to run many six-mile races will find it worthwhile to make a special 6-mile table. This can be readily done if a computing machine of the Monroe type is available, though it will take 10 or 12 hours steady computing to do the job.

After all heats of an event have been run and the winners by points determined a final smooth copy of the summary sheets for the event should be prepared. On this sheet the boats appear in the order of total points won and consequently position won in the entire event. At San Diego we use blue printed sheets for the rough summaries and sheets made on Van Dyke paper for the smooth copies. These smooth copies are made in drawing ink. Copies of unquestioned accuracy can then be made in any quantity by blue printing. If, as will often happen, some of the regatta officials are not available to sign the summary sheets as soon as they are finished blue prints of the unsigned sheets should be made for immediate forwarding to the yachting magazines or to representatives writing the story of the regatta for them. A set of the finished and signed sheets together with copies of such affidavits as are required by the sanctioning association as to the accuracy of the course and the timing are finally bound in a heavy manilla cover bearing a suitable title and forwarded for the files of the association.

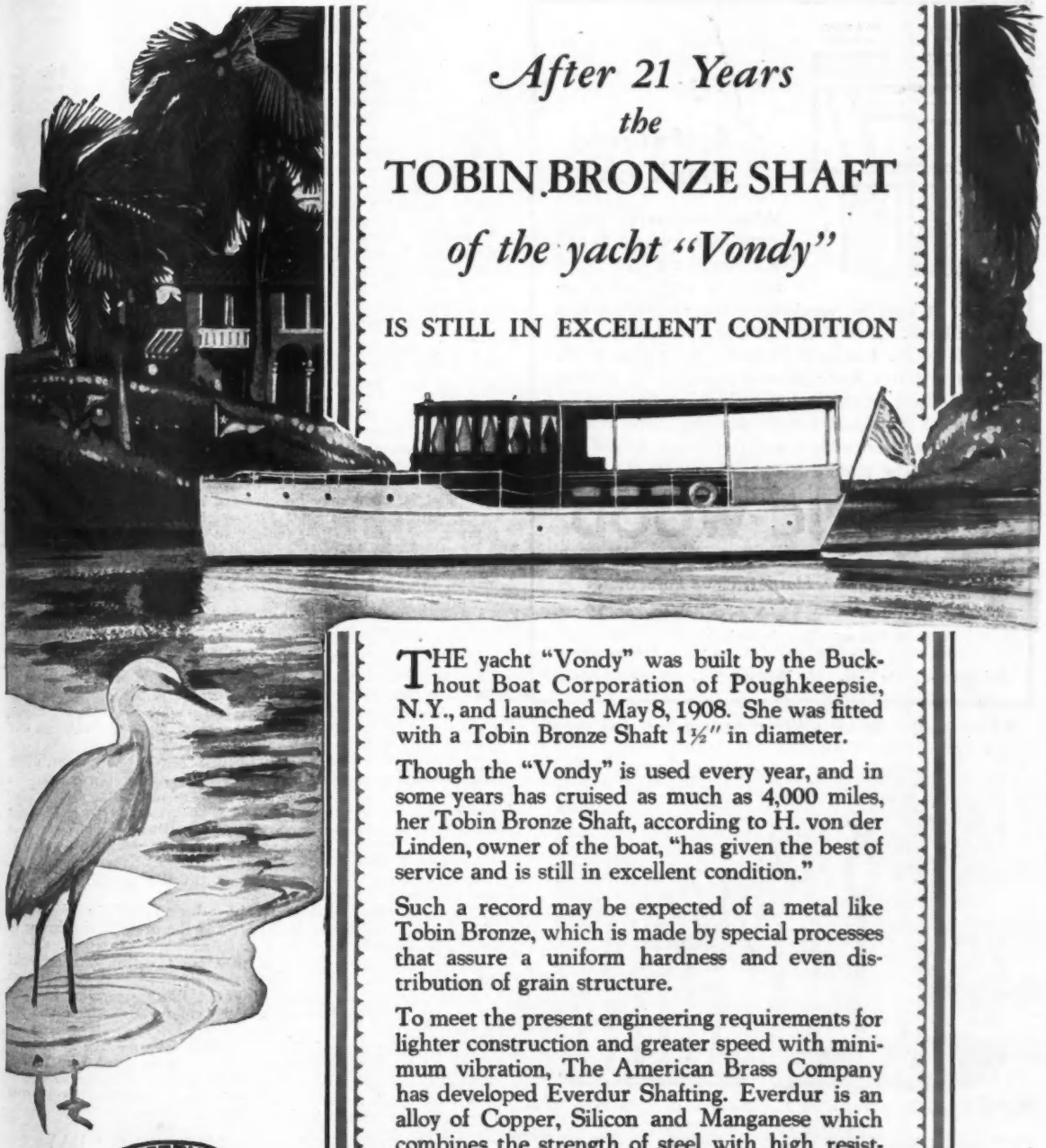
The above discussion applies to the timing of races where boats compete against each other over a closed course. The timing of mile trials is simplified by the fact that but one boat is on the course at a time and is greatly complicated by the necessity of signaling from one end of the course to the other to the timers to start or stop their watches. There is no need for split second watches. The necessary signaling has often been done by flags, but the method is too crude for present day speeds. The only way to do a satisfactory job is to have three buzzer circuits extending from an observers stand at one end of the course to a similar stand at the other. A separate circuit should be provided if possible for telephone communication between the two stands. Two wires of the buzzer circuits can be utilized for the phones by means of double throw switches but a separate circuit is much preferable.

Three watches are used. These are started and stopped by the timers on signal given from the observers by means of the buzzers above referred to. Each buzzer is operated by a pair of observers stationed at opposite ends of the mile. The observers are all equipped with sight vanes. As a boat approaches the start of her run all hands are warned by telephone to stand by and as she nears the line the observers at the start send a series of dots with their keys to signal boat coming. When she is within forty or fifty feet of the line the keys are held down to make long dashes the terminations of which are the signals to the timers to start their watches. The observers at the other end of the mile send a similar series of signals to stop them. The signals sent by each observer may be roughly represented on paper thus: Buzz-zz-zz-zz-zz — (boat coming) zz-zz — zzzzzzzzzzzzz (time!) Times are averaged and speeds computed in the general manner outlined for races over a closed course. Timing tables for mile trials will be found in the hand books of both the American Power Boat and Mississippi Valley Power Boat Associations together with directions for their use. The best value of the actual speed of the boat through the water is probably given by the simple arithmetic mean or average of the speeds made on the six runs. The more complicated methods of computing the mean, such as the socalled admirality method of computing the mean of the means, are intended to eliminate the effect of a tidal current of varying strength in a series of runs where the speed of the vessel through the water remains practically constant. In the trials of large vessels such methods are of undoubted value but in motor boat timing where there may be considerable variations in the actual speed of the boat through the water it is better to use the simpler method of computing the average by adding the six speeds and dividing the resulting figure by six.

Mile trials have often been run with but a single observer at each end of the course and with three timers starting and stopping their watches upon signals given by them over a single buzzer circuit and buzzer. The method can not be commended however on account of the unfortunate fact that any single observation on any physical measurement of time or distance is of very little value. Even the best observer will occasionally be more or less asleep at the switch and there must be independent checks to guard against this. This is a well recognized fact and the methods of the engineering or physical laboratory and the astronomical observatory have long recognized it. The sporting world should do likewise. There is furthermore a very considerable time lag between the receipt of a buzzer signal and its trans-

(*Continued on page* 160)

Advertising index will be found on 3rd last page



After 21 Years
the
TOBIN BRONZE SHAFT
of the yacht "Vondy"

IS STILL IN EXCELLENT CONDITION

THE yacht "Vondy" was built by the Buckhout Boat Corporation of Poughkeepsie, N.Y., and launched May 8, 1908. She was fitted with a Tobin Bronze Shaft 1½" in diameter.

Though the "Vondy" is used every year, and in some years has cruised as much as 4,000 miles, her Tobin Bronze Shaft, according to H. von der Linden, owner of the boat, "has given the best of service and is still in excellent condition."

Such a record may be expected of a metal like Tobin Bronze, which is made by special processes that assure a uniform hardness and even distribution of grain structure.

To meet the present engineering requirements for lighter construction and greater speed with minimum vibration, The American Brass Company has developed Everdur Shafting. Everdur is an alloy of Copper, Silicon and Manganese which combines the strength of steel with high resistance to corrosion.

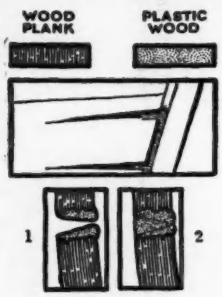
Tobin Bronze and Everdur are made exclusively by The American Brass Company in the form of Sheets, Rods, Tubes and turned and specially straightened shafting. For further information, address The American Brass Company, General Offices: Waterbury, Connecticut.

EVERDUR

Everdur Fastened

A boat that is fastened with screws made of Everdur is the last word in sound construction. Everdur possesses greater strength and corrosion resistance than any material heretofore used for this purpose.

ANACONDA
SHAFTING



for

Splintered Plank Ends

Where splintered plank ends occur Plastic Wood will build up the plank as firm and strong as new. It can be worked in the cracks with a putty knife. But if rot has occurred, this must be cut away. Leave the edges of the plank rough. With a putty knife spread a layer of Plastic Wood, thick on the inside and thin on the outside. Allow to dry, and repeat process until Plastic Wood has been added and hardened above the surface of the plank. Plane down smooth.

PLASTIC WOOD

Reg. U.S. Pat. Off.

At Ship Chandlers, Hardware and Paint Stores

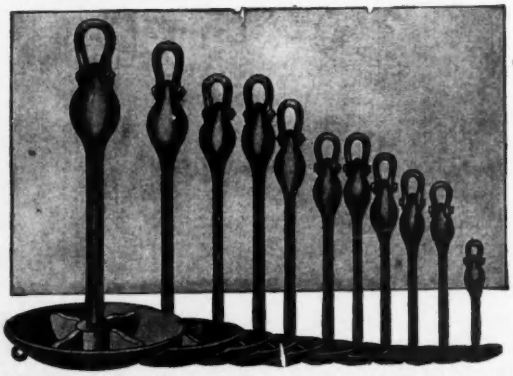
1 lb. can $1.00 ¼ lb. can 35 cts.

Write our Engineering Dept. for free book on Plastic Wood for boat repairs, or for advice on any specific problem.

Addison-Leslie Co., 26 Bolivar St., Canton, Mass.

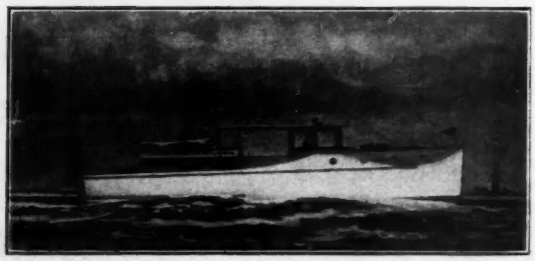
FAIRHAVEN BULB-SHANK MOORING ANCHORS

TOPPING BROTHERS, *New York District Representatives*



Booklet Gives Facts—Fairhaven Iron Foundry Co., Fairhaven, Mass.

MARYLAND BUILT CRUISERS



41 x 10'-8" x 2'-8"—Best construction, full equipment, Lux, Protane, screens, searchlight.
SINGLE SCREW—$6700 TWIN SCREW $10,800

HOUSEBOAT CRUISERS

Able, comfortable, plain, heavy construction, Homelite, Lux, awning, screens, searchlight 50 x 14 x 3—$9950.

RALPH H. WILEY, M.E.

51 BENNETT AVE. ARLINGTON, N. J.

Accuracy in Records

(*Continued from page* 158)

lation into the action of stopping or starting a watch. To equalize this effect it is essential that the timers both start and stop their watches on buzzer signals. If they happen to be located at one end of the course *they should not watch the boats.*

In conclusion let it be said that timing is a simple operation, but it is a job in which events follow each other with disconcerting rapidity. The success of a timing organization depends more upon the preparation and drill that its members have received at the hands of the chief timer than upon any other factor. A newly organized squad should be assembled and drilled a number of times before they attempt to handle a race. In timing, as in many other undertakings, preparation spells success; and the lack of it failure!

(To be continued)

IMPROVED ELECTRIC PLANT

The United States Motors Corporation of Oshkosh, Wisconsin, has recently announced a number of interesting improvements to their 4-cycle Model W 350 watt electric plant. Cooling fans materially reduce the heat and a larger generator increases the capacity to 450 watts although the rating remains at 350. A new gravity fuel tank and float feed carburetor assures easy starting and economical operation.

By a unique system of base spring suspension, vibration has been practically eliminated. Perfect voltage regulation is possible and the plant may be operated either with or without batteries, with provision made for constant lighting direct from the plant in the event that the battery should fail to function.

Practical switchboard is supplied haing all necessary fuses, meters, and control switch. Overall dimensions are 25-inch length, 18-inch height and 12-inch width while the gross weight is slightly over 100 pounds.

NAVAL ARCHITECTS MOVE TO FIFTH AVENUE

As an indication of the renewed interest taken in the sport of yachting, the fact that Cox & Stevens Incorporated, the well known firm of Naval Architects and Yacht Brokers are moving to new and larger offices in the Lefcourt National Building, 43rd Street and Fifth Avenue, is most significant.

Cox & Stevens have been actively engaged in designing, selling and chartering yachts and other vessels for over a quarter of a century and their business has been steadily increasing. They report that the work now in hand is so great and the demand for both new and second-hand yachts of all types and sizes is so extensive that they have felt it necessary, in order properly to take care of their clients, to move to larger and better quarters; also to increase their staff both in the designing, as well as in the brokerage department.

The new offices of this firm have been especially designed for their especial use, each department of the organization having its own separate office space which will lead to efficiency and better service. Clients visiting this new office will find a delightful conference room at their disposal where plans may be discussed comfortably and without interruption, this room being furnished in modern style and having all the comforts available in a private residence.

A spcial feature of this new office is a terrace fronting on Fifth Avenue which it is proposed to have fitted with awnings overhead and attractive wicker furniture, as on the after deck of a modern yacht, where the members of the firm can entertain their clients during the hot summer months.

MINNEAPOLIS PLANS LABOR DAY REGATTA

Minneapolis is planning one of the largest outboard motor regattas to be held in America this year.

Plans are under way now which indicate that there will be over 100 boats in a single get-away at one time in the main event, competing for the beautiful Speed Miller Trophy which will be one of the largest trophies ever offered for boat racing of any kind any place in America.

This trophy is a beautiful specimen, standing approximately forty inches high and modeled on a black pedestal with a beautiful cover.

Last year the race at Minneapolis for the Speed Miller Trophy for 1928 was one of the outstanding races of the year, and this year plans have been made for an equally important event.

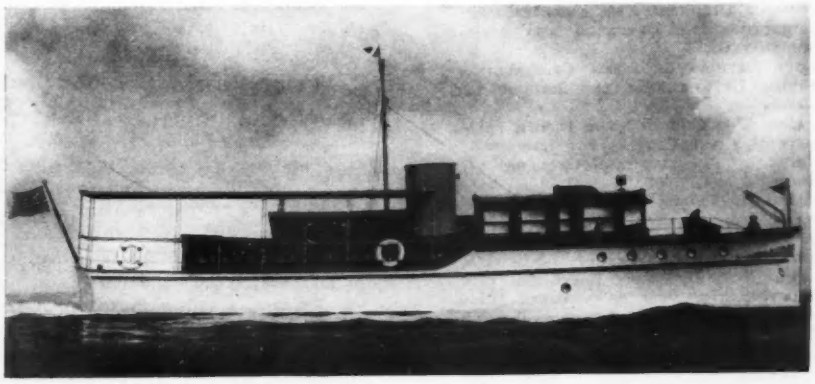
There will be over $500.00 in gold prizes and cash prizes. The winner of the main event will not only win the beautiful Speed Miller Trophy, but also $200.00 in cash and will be in a position for cash prizes in the various classes besides.

Entry blank and further data can be obtained from the Northern Research Industries, Minneapolis.

Advertising index will be found on 3rd last page

for the discriminating TOWNSEND

A FIFTY-SIX FOOT twin-screw diesel cruiser designed expressly for the discriminating yachtsman. The yachtsman who wants something finer than the average . . . . a craft that is not only modern in line, accommodations and equipment, but also mechanically. Or to put it in a nutshell, a craft which is ahead of its time and whose depreciation is negligible as the years roll by. Such a boat is the Townsend, powered with twin 75 H.P. six-cylinder Hill Diesels, giving a speed of 14-16 M.P.H. with a cruising radius of 800 to 1,000 miles without refueling and at an operating expense of about one-third that of gasoline power.



Two double staterooms with individual washrooms accommodate six to ten in owner's party. Enclosed deck house makes an excellent lounge or dining saloon. Canopy covered after deck is large enough for teas, dancing or fishing parties. The culinary department is equipped for the preparation of full course dinners. Electric refrigeration and hot and cold running water. One-man operated from centralized controls on bridge. Should owner care to carry a crew, quarters are provided for two.

Write today for further particulars.

TOWSEND BOAT BUILDING & ENGINE CO.

1418 PACKARD BUILDING PHILADELPHIA, PA.

Plant: Fairhaven, Mass., P. O. Box 97

Mention MoToR BoatinG, *57th St. at Eighth Ave., New York*

A New Book

Motor Boat Building

VOLUME XI

MoToR BoatinG Ideal Series

By

H. W. PATTERSON
WILLIAM ATKIN
and others

With Chapters on How to Design a Motor Boat, Reading the Different Plans, etc., and Twelve Complete V-Bottom Designs by William H. Hand, Jr.

CONTENTS

PART I.
Amateur Boat Building

1. Laying Down the Lines
2. Continuing the Work of Laying Down the Lines
3. Laying Down the Keel
4. Preparing Moulds and Setting Up the Frame
5. Bending and Fitting the Frames
6. Putting in Fore and Aft Members
7. Applying the Planking
8. Finishing the Planking
9. Deck Framing, Water-Tight Bulkheads and Decks
10. Interior Joiner Work and Finishing

PART II.
Starting Correctly to Build

1. The Laying Down of Lines and the Proper Interpretation of the Plans
2. Shaping of the Stem, Keel and Deadwood
3. Constructing the Deadwood and Boring the Shaftlog
4. Various Methods of Stern Construction, Setting Up the Keel and Bending the Frames
5. Steaming Woods, Fitting the Floors, Frame Fastenings and Cutting the Limbers
6. Methods of Planking and Caulking the Hull
7. Beveling the Frames and Fitting the Deck Beams
8. Various Kinds of Engine Beds Which Are Suitable for Small Craft
9. Showing Two Different Ways for Constructing the Sides of a Cabin House with, in Addition, a Simple Type of Companion Slide, Companion Doors, and a Practical Design for a Flush Hatch
10. General Hints

PART III.
How to Design a Motor Boat

1. The Body, Sheer and Waterline Plans
2. The Profile
3. Starting the Design
4. Locating the L W L
5. The Midship Section
6. Drawing the L W L
7. The Sheer Line
8. The Sections
9. Diagonals
10. Water Lines
11. Buttock Lines
12. Displacement
13. Weights and Trim
14. Designing to a Displacement
15. The Curve of Areas
16. Power and Speed
17. Stability

PART IV.
Twelve Complete V-Bottom Designs

1. Edith, a 15-Footer
2. Jane, an 18-Footer
3. Katherine, a 30-Foot Cruiser
4. Dorothy, a 25-Foot Runabout
5. Zenith, a 25-Foot Cruiser
6. Cyclone, a 36-Foot Auxiliary
7. Eclipse, a 40-Foot Express Cruiser
8. Magnet, a 28-Foot Cruiser
9. Tornado, a 45-Foot Auxiliary Schooner
10. Broncho, a 29-Foot Cruising Runabout
11. Shark, a 21-Foot Utility Runabout
12. Claire, a 36-Foot Express Cruiser

Price of Motor Boat Building—$3.00

Foreign Postage 50 Cents Extra

MOTOR BOATING

FIFTY-SEVENTH STREET at EIGHTH AVENUE
NEW YORK, N. Y.

Advertising index will be found on 3rd last page

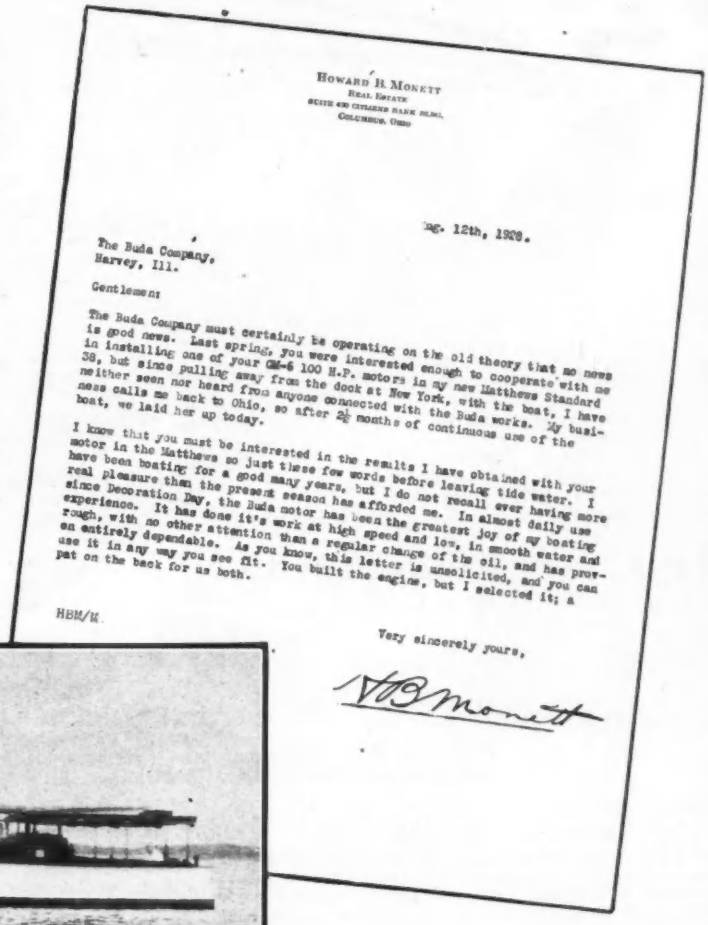
"The BUDA Engine My Greatest Joy"

Owners of Buda Marine Engines are the best salesmen for these faithful power plants. Their enthusiasm is based on actual experience. They know.

Specify Buda—and know the real joy of boating.

Catalog No. 580 sent promptly on request.

Buda Marine Engines range from 80 to 130 H.P. — with or without Buda Reduction Gear—reduction of 2.4 to 1.



HOWARD B. MONETT
REAL ESTATE
SUITE 430 CITIZENS BANK BLDG.
COLUMBUS, OHIO

Aug. 12th, 1928.

The Buda Company,
Harvey, Ill.

Gentlemen:

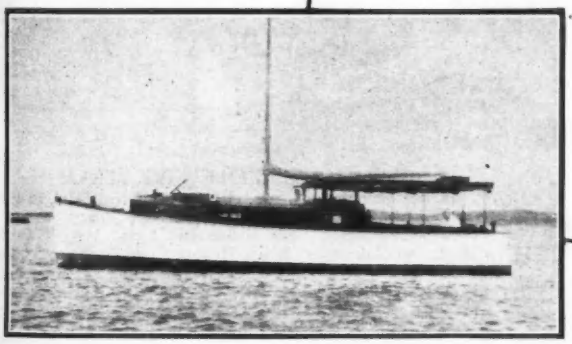
The Buda Company must certainly be operating on the old theory that no news is good news. Last spring, you were interested enough to cooperate with me in installing one of your CM-6 100 H.P. motors in my new Matthews Standard 38, but since pulling away from the dock at New York, with the boat, I have neither seen nor heard from anyone connected with the Buda works. My business calls me back to Ohio, so after 2½ months of continuous use of the boat, we laid her up today.

I know that you must be interested in the results I have obtained with your motor in the Matthews so just these few words before leaving tide water. I have been boating for a good many years, but I do not recall ever having more real pleasure than the present season has afforded me. In almost daily use since Decoration Day, the Buda motor has been the greatest joy of my boating experience. It has done it's work at high speed and low, in smooth water and rough, with no other attention than a regular change of the oil, and has proven entirely dependable. As you know, this letter is unsolicited, and you can use it in any way you see fit. You built the engine, but I selected it; a pat on the back for us both.

HBM/H

Very sincerely yours,

H B Monett



Branch Offices:
30 CHURCH STREET . . . . . NEW YORK, N. Y.
664 MISSION STREET . . . SAN FRANCISCO, CAL.

THE BUDA COMPANY, HARVEY, CHICAGO SUBURB ILLINOIS
ESTABLISHED 1881

BUDA
MARINE
POWER

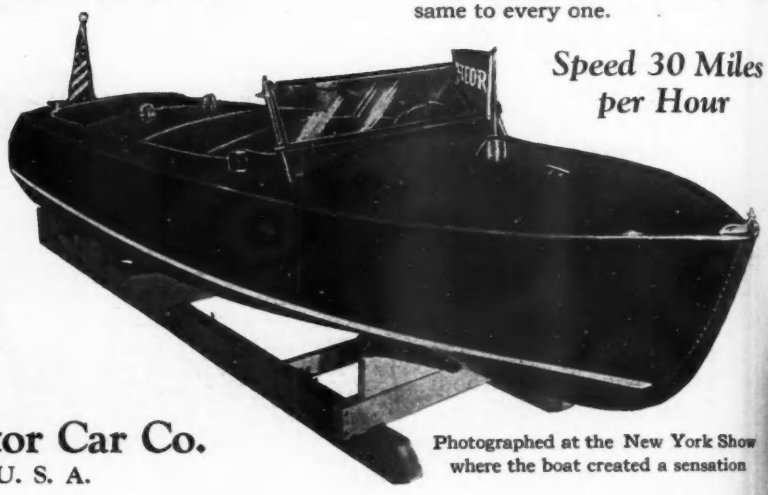
Meteor $1750

All Salt Water Constuction

Meteor direct sales eliminate the 25 to 40% commission allowed dealers. The Meteor will compare favorably with any power boat selling at $3000. Present price can not be guaranteed because of the heavy increase in the cost of brass and copper parts. There is only one price, which is absolutely the same to every one.

Specifications

Length 27 ft; beam 6 ft, 7 ins.; draft 23 ins.; V bottom type; all oak and mahogany 10-passenger runabout 115 h. p. Continental 8 cyl. motor, Paragon reverse gear, Groco oil cooler, Zenith carburetor, Autolite electrical equipment, A. C. mechanical gasoline pump. All bronze fastenings and fittings including bronze knees instead of oak. Complete equipment with running lights, speedometer, heat indicator, oil pressure gauge, ammeter, gasoline gauge, windshield, anchor, horn, fire extinguisher, life preservers, self-bailing pump and tools.



Speed 30 Miles per Hour

The Meteor Motor Car Co.
PIQUA, OHIO, U. S. A.

Photographed at the New York Show where the boat created a sensation

Yard and Shop

(*Continued from page* 126)

CANADA BUYS GREATEST AMOUNT OF MARINE PRODUCTS

Exports of marine products for 1928 totalled $5,338,464, according to a report just released by the Automotive Division of the Department of Commerce. Canada was the greatest market for the American manufacturers, followed by the United Kingdom and British Malaya. Australia took the fourth greatest volume of exports, Venezuela the fifth and Australia the sixth.

Enterprising American merchants sold motor boats in Aden, an Arabian seaport, Iraq, Kwantung in China and Mozambique in Portuguese East Africa. Other shipments were made to Belgian Congo, Morocco, Iceland and Barbados.

GAR WOOD TO BUILD NEW BOAT

Upon the conclusion of his successful effort to break the world's speed record for motor boats, Gar Wood announces that Miss America VII will be relegated to the scrap heap to be replaced by a faster craft.

Although no other driver has approached the speed of 93.123 miles per hour, set at Miami Beach March 25, Gar Wood will continue to design boats which will be fast enough to keep challengers trailing in his wake. It is quite possible that the American expert has heard rumors of Miss Marian Carstairs' new craft which she is preparing for the Harmsworth trophy races at Detroit this fall.

Last year, she brought an exceptionally light boat to this country and attempted to defeat Wood but lost out after a rather ineffective effort. Her boat carried less than half the horsepower of Miss America VII and seemed to have been capable of only half the speed.

Recent reports indicate that Miss Carstairs is adopting some of Gar Wood's design inasmuch as she will return to America this year with a boat similar to Miss America VII. The English challenging boat will carry engines developing 2,000 horsepower instead of 1,000 as carried by Estelle II, the ill-fated challenger of a year ago.

FAST TIMES AT MIAMI

In the Runabout Class, Roger S. Firestone, 16-year-old son of Harvey S. Firestone, Sr., of Miami Beach, was a very successful contestant. He drove his boat, Miss Elizabeth II, a Model 40 Baby Gar Black Beauty open runabout, powered with a 200 h. p. Scripps, winning First Place in the event for 25 h. p. runabouts, second place in the 200 h. p. class runabouts and he finished second in the Free for All or Chance Race, quite an accomplishment for a young man sixteen years old.

In the Express Cruiser Race, Pirate, owned by Robert S. Graham of Detroit and Miami, piloted by Capt. Joe Kinney, won first place. This boat was built and designed by Gar Wood in 1922. It is 35 feet long, 8 feet beam, powered with a 400 h. p. 12-cylinder Gar Wood Marine Engine. The second boat to finish in this race was Gar Sr. II, owned and piloted by Gar Wood, a 50-footer, powered with two 12-cylinder Gar Wood Marine Engines.

In the mile trials on Monday, the 25th, Gar Wood established a new World's Record of 93.123 average with the best mile at the rate of 94.118 m. p. h. This not only broke the previous salt water record by nearly 13 m. p. h., but also broke the fresh water record made with Miss America VII at Detroit last fall at 92.838 m. p. h., driven by Geo. Wood. Gar Wood received a lot of personal satisfaction by breaking this record as a lot of doubting Thomases have been saying that he would not drive at extreme speed. He, however, proved his mettle in driving this boat faster than anyone has ever driven any boat before. Orlin Johnson rode as his engineer, as he always does.

Major Segrave, owner of Miss England, owns two of the Model 40 Baby Gar open runabouts in England, both powered with 6-cylinder Kermath Marine Engnies. He also purchased Miss Okeechobee, formerly owned by Mrs. Conners. This is a 28-foot Gar Wood product powered with a 500 h. p. Gar Wood 12-cylinder Marine Engine. Major Segrave won the British speed record with this boat last fall, driving it slightly better than 61 m. p. h.

(*Continued on page* 166)

Advertising index will be found on 3rd last page

KILL FIRE WHILE IT IS YOUNG

In a contest with fire ALFITE always wins

One pull on a release lever discharges ALFITE Gas through fixed piping into the fire space. In a few seconds the fire is out. Fire and ALFITE Gas cannot *both* exist in the same space—and ALFITE always wins.

The ALFITE System takes up very little space. The gas is stored in small steel cylinders connected by fixed piping to the danger points where fire may break out. One simplified valve seals against leakage and assures rapid, complete discharge.

If you are interested in protecting your yacht or motor boat against fire, write us for "One Fire is Too Many", a booklet describing and illustrating the ALFITE System. American-LaFrance and Foamite Corporation, Engineers and Manufacturers, Dept. S6, Elmira, N. Y.

AMERICAN-LAFRANCE AND FOAMITE PROTECTION

A Complete Engineering Service For Extinguishing Fires

SCHEBLER Design a Great SAFETY Factor on Boats

Checks "back-firing" efficiently

SCHEBLER Model S Carburetors for marine engines substantially eliminate danger from back-firing. A check-valve closes the fixed-air intake against back pressure, and back-firing tightly seals the auxiliary air-valve. These provisions are positive and certain—arresting any ordinary back-firing and confining it within the carburetor.

In every detail these Model S Carburetors show the experience and development coming from more than twenty-five years of leadership in the marine field. They provide *Exact* carburetion—the utmost in performance and economy. They give long and trouble-free service in the trying conditions of marine service because proper materials are used throughout.

Use Schebler Carburetors on motor boats for the utmost in performance, economy, reliability and safety. Write us for the name of the Schebler distributor nearest you.

WHEELER-SCHEBLER CARBURETOR COMPANY
Established 1901
INDIANAPOLIS, U. S. A.

SCHEBLER The World's Finest CARBURETORS
REG. U.S. PAT. OFF. THE HEART OF THE ENGINE

Yard and Shop

(*Continued from page* 164)

NEW MARYLAND BUILT FIFTY FOOTER

A new and unsual 50-foot house boat cruiser has been developed by Ralph H. Wiley of Arlington, N. J., designed primarily for the yachtsman interested principally in sturdy construction, comfortable accommodations and simple rather than luxurious appointments.

It is a Maryland built craft of 14-foot beam and 3-foot draft aptly named Four Figures because of its moderate cost. No attempt has been made at a lavish effect but nothing has been omitted in design, construction or equipment that could add to appearance, comfort or safety.

Below decks some of the comforts provided include berths with standard three quarter springs and mattresses, a large galley with standard kitchen cabinet, floor space permitting the luxury of chairs and a bathroom.

Diesel power is offered as optional, the Cummins 50 h. p. 6 cylinder Model U being recommended as well suited to the hull. Equipment is unusually complete, including such items as screens, awning, searchlight, Lux fire protection, and 32-volt Homelite electric plant.

FIRST AID FOR THE TROUBLE SHOOTER

Motor boat owners who like to diagnose the ailments of their engines will find many valuable hints in a booklet just issued by the Champion Spark Plug Company, entitled Facts about Spark Plugs and Engines. In this booklet Champion engineers have assembled the results of years of study into the causes of a long list of motor troubles which perplex the amateur and sometimes even the professional student of internal combustion engines. The range of information offered is wide. The booklet includes not only a discussion of spark plug construction and possible irregularities in their functioning, but a survey of other parts of the mechanism of the modern gasoline motor, as well. Copies of the booklet are available without cost through dealers in Champion spark plugs or may be had by addressing the advertising department of the Champion Spark Plug Co. at Toledo, Ohio or Windsor, Ontario.

FOR THE YACHTSMAN-MECHANIC

Boatmen who are accustomed to doing their own engine work will be interested to know that Bonney Forge & Tool Works of Allentown, Pa., have just announced a new Set of Double End Box Wrenches, nine wrenches with openings from 7/8 to 1 1/8 inches, put up in an attractive metal carrying case. It is known as Set No. 33.

These double end box wrenches are designed with a double hexagon opening, allowing secure gripping of nuts with very little handle movement. It takes but a twelfth turn of the handle to remove a nut. These wrenches are wonderfully strong, thin and light in weight and are particularly valuable for close corner work.

They can be purchased individually if desired.

FOREIGN DEMAND FOR AMERICAN OIL INCREASES

Operators of marine engines in foreign countries are rapidly recognizing a fact which has already been generally accepted in this country, that is, that oils used satisfactorily for lubricating automobile engines do not always give the best results in marine engines. As a result the Enterprise Oil Company, manufacturers of Duplex marine engine oil, is finding that export demand for its product is steadily increasing. This demand comes from all quarters of the globe, Norway, Sweden, Finland, Germany, South America, Australia and New Zealand being among the centers to which large quantities of this oil are annually shipped.

At home, further evidence of the popularity of this high grade oil is found in the continuation by the Chris Craft Company of Algonac, Michigan, of its policy of recommending Duplex for use in the power plants of the entire Chris Craft line.

Duplex is also extensively used in high speed outboard racing motors, a fact which speaks well for the quality of this well known oil, inasmuch as the demands on an oil in racing service are very severe. Duplex was the lubricant used by Harrison Fraser at Miami Beach in March when he established a world's record speed of 43.76 m. p. h. for Class D outboards.

(*Continued on page* 168)

ATLANTIC
RADIO & MARINE CO.
INCORPORATED

The mark of service for NEW ENGLANDERS

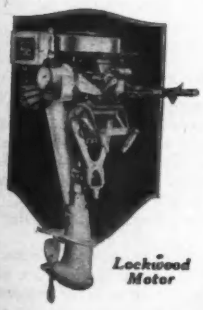
OUR business is dedicated to promoting the pleasures of New England boating enthusiasts. In this regard we have made it a point to represent products which we know from actual experience will give you the maximum in value and pleasure from your purchase. Let us assist you in selecting the boat or engine best suited for your personal requirements.

Corsair Cruisader

Lyman Outboard Skiff

Dart Sedan Runabout

Herbst Viking Family Outboard Boat



Lockwood Motor

Distributors for

CORSAIR CRUISADER
DART and DOWN EASTER RUNABOUTS
DEE-WITE. HERBST and LYMAN OUTBOARD BOATS
LOCKWOOD MOTORS
SKIBOARD
CHRYSLER and STEARNS MARINE ENGINES
DUPLEX MARINE OILS
KASSON LUBRICATING COMPOUND

Expert Propeller Repitching

Duplex Marine Oil

ATLANTIC RADIO & MARINE COMPANY, Inc.

20 BROOKLINE AVE., BOSTON, MASS.

Now!— A Simplified Fire Extinguishing System

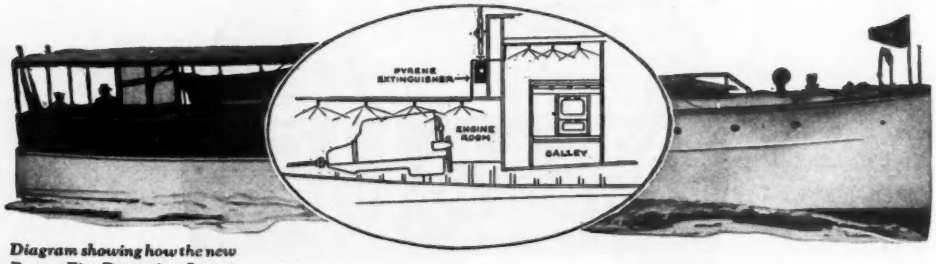


Diagram showing how the new Pyrene Fire Protection System protects engine, bilge and galley.

Pyrene
FIRE
PROTECTION SYSTEMS FOR MOTOR BOATS
PYRENE MFG. COMPANY
NEWARK, NEW JERSEY
Branches: Atlanta, Chicago, Kansas City, San Francisco
Makers of Fire Equipment since 1907

Here is real fire protection for motor boats, a product of Pyrene, leaders in fire protection since 1907.

Simple to operate and keep up. Inexpensive. Easily installed.

Requires little space. Gives instant and positive protection to engine, bilge and galley. Can be recharged afloat. Either automatic or manual operation.

Boat builders and boat owners, write for complete information *now.*

Yard and Shop

(*Continued from page* 166)

SIMPLIFIED FIRE EXTINGUISHING SYSTEM

Here is a new method of protecting cruiser-type motor boat engine rooms and galleys against fire. It is introduced by the Pyrene Manufacturing Company, Newark, N. J. It is a very simple and thoroughly effective system, whereby Pyrene extinguisher fluid is sprayed into the engine room bilge through special heads placed to give uniform air dilution.

The fluid is stored in a Pyrene Fire Extinguisher of the pressure type, a recent development. Because of the compact design and ease of operation, this extinguisher is admirably adapted to motor boat needs. Units may be installed at any convenient point and operated by means of hand levers located on the extinguishers or by control from pilot house or they may be installed to operate automatically by a special heat detector.

A turn of a valve in the extinguisher releases the air pressure stored. The liquid is instantly forced through tubing to the spray heads, where it is sprayed at an angle of 90° over the entire surface to be protected. The sprayed fluid vaporizes and forms a fire-extinguishing atmosphere which smothers the fire instantly.

The upkeep of the system is simple and the extinguishers are extremely easy to recharge. It is merely a matter of pouring in fresh extinguisher liquid and pumping to restore the air pressure. A hand pump is attached to the extinguisher for this purpose.

The galley, as well as the engine, can be protected in this same way. This is done by means of a by-pass tube which taps the tube leading from the extinguisher to the engine. Spray jets set in the galley serve the same purpose as those over the engine. Pyrene vapor being heavy permeates every point of engine room or bilge and assumes an extinguishing atmosphere reaching otherwise inaccessible points.

A particularly valuable feature of the Pyrene System is its ease of recharging after use. By carrying a supply of Pyrene liquid which is compact and does not deteriorate the owner can keep a fire extinguisher always ready for emergencies. It is not necessary to return to port to recharge extinguishers. The system is freezeproof. The Pyrene fire extinguishing system on board a cruiser can be arranged, within certain limits, to fit any cruiser design.

RUNABOUT

The Cape Cod Shipbuilding Corporation of Boston and Wareham announce that they will sell the famous Gar Wood boats this season in addition to their line of seaworthy sailing knockabouts, dory launches, outboard motor boats and high grade rowing skiffs. The Gar Wood boats will be shown in the water running at Boston, Massachusetts, and may be inspected at the Wareham plant of this concern.

Much interest in this announcement is being manifested by summer residents of Cape Cod who realize that it will be a matter of great convenience to be able to not only purchase these fast and famous racing craft at Wareham, but also to obtain service practically at their own water front. The prospects for 1929 business are very encouraging both for Gar Wood boats as well as for the regular Cape Cod products.

Interesting new circulars covering both the Gar Wood runabouts and also the complete Cape Cod line will be gladly mailed to anyone writing the Cape Cod Shipbuilding Corporation, 18 Tremont Street, Boston, Mass.

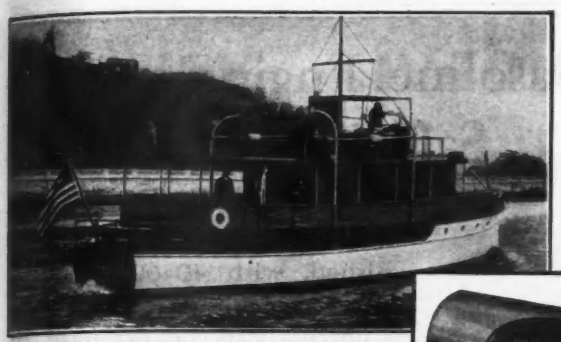
WEEMS SYSTEM OF NAVIGATION ATTRACTS WORLD-WIDE ATTENTION

The power of advertising is again demonstrated in the results being obtained by Pacific Technical University, of San Diego, California, exclusive distributors of the only published study data available covering The Weems System of Navigation. The institution reports receiving inquiry from China, Japan, South America, Australia, Mexico, South Africa, India, England, Germany, France, Italy, Russia, Sweden and other foreign countries.

Two courses of study, written by Commander Weems, explaining this new and simplified method of navigation, are offered by Pacific Technical University. One course is of interest to airplane pilots and the other applies the Weems System to marine navigation. The University reports that many of the country's prominent yachtsmen are taking up the work, as well as a number of steamship companies and similar corporations.

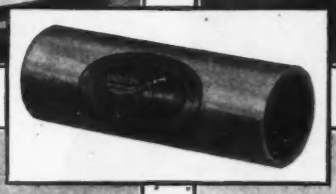
(*Continued on page* 170)

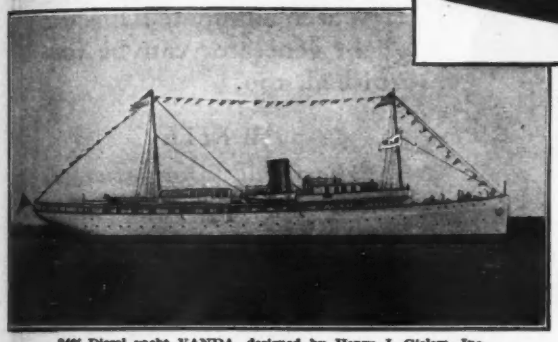
Advertising index will be found on 3rd last page



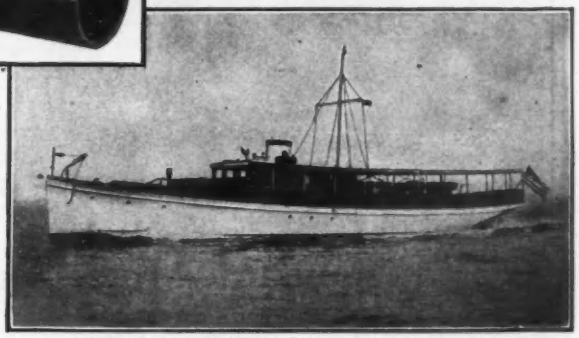
67' Diesel yacht REOMETTA, designed and built by New York Yacht, Launch & Engine Co., for R. E. Olds, Esq., Lansing, Mich. Hill Diesel motors. Goodrich Cutless Bearings.

90' Diesel yacht BARBETT, designed by Wm. E. Fermann-Defoe Boat & Motor Works, builders, for Charles Coryell, Bay City, Mich. Goodrich Cutless Bearings.





240' Diesel yacht VANDA, designed by Henry J. Gielow, Inc. Bath Iron Works, Bath, Me., builders, for Ernest B. Dane, Esq., Boston, Mass. Bessemer-Diesel engines. Goodrich Cutless Bearings.



98' Diesel yacht RANELPE, designed and built by Luders Marine Construction Co., for Commodore Austin H. Perry, Portland, Me. Winton Diesel engines. Goodrich Cutless Bearings.

Four prominent 1928 Diesel yachts *choose* Goodrich Cutless Bearings

THESE Diesel powered yachts, pictured above, have one important engineering principle in common — namely, Goodrich Cutless Rubber Bearings.

As a result, the owners of these yachts will secure these definite benefits: mid-season haul-out for bearing renewal will be eliminated. Propeller shaft scoring—unavoidable with old type bearings—will be done away with. Vibration will be radically reduced.

Goodrich Cutless Bearings outlast every other type of bearing. They are especially recommended for use with Tobin bronze or Monel metal shafting. They are made in sizes for every type of craft, from power dinghy to ocean going yachts. Many leading naval architects and builders of standardized boats now install Goodrich Cutless Bearings as standard equipment. On your present boat, or your next one, have Goodrich Cutless Bearings installed.

For catalogue and additional information, see the distributor (listed below) nearest you. Or write to The B. F. Goodrich Rubber Co., Est. 1870, Akron, O., (In the West, Pacific Goodrich Rubber Co., Los Angeles, Cal.)

DISTRIBUTORS

METROPOLITAN DISTRICT
Topping Bros., 159 Varick St., New York City.

FREEPORT, L. I., N. Y.
The Columbian Bronze Corp.

BOSTON, MASS.
Walter H. Moreton Corp., 1043-45 Commonwealth Ave.

HARRISBURG, TEXAS
Peden Iron & Steel Co.

LOS ANGELES, CALIF.
Pacific Goodrich Rubber Co. 1386 E. 7th St.

NEW ORLEANS, LA.
Arthur Duvics Sons, 122 Chartres St.
Alker-Donovan Co., Inc., 435 Camp St.
Stauffer, Eshleman & Co., Ltd.

WASHINGTON, D. C.
R. L. Fryer, Special Rep., The B. F. Goodrich Rubber Co., Cutless Bearing Division, 430 Transportation Bldg.

CHICAGO, ILL.
K. M. Walker & Co., 327 So. La Salle St.

JACKSONVILLE, FLA.
Gibbs Gas Engine Co., of Florida, 26 South Main St.

PHILADELPHIA, PA.
Marine Equipment & Supply Co., 116 Walnut St.

SEATTLE, WASH.
Pacific Goodrich Rubber Co., 115 King St.; Pacific Marine Supply Co., 1223 Western Ave.

SAN FRANCISCO, CALIF.
Pacific Goodrich Rubber Co., 650 Second St.
Ford & Geirrine, Balfour Bldg.

DETROIT, MICH.
H. H. Smith & Co., 334 E. Jefferson Ave.

TAMPA, FLA.
Knight & Wall Co.

BALTIMORE, MD.
The James Walker Co., 123 Light St.

TORONTO 2, CANADA
John Leckie, Ltd.
77 Wellington St. W.

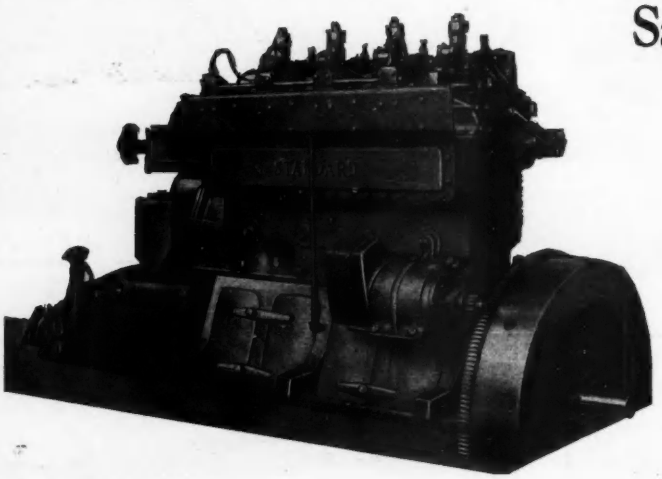
LANCASHIRE, ENGLAND
British Goodrich Rubber Co., Ltd., Leyland.

FRANCE
Societé Francaise B. F. Goodrich, Colombes (Seine).

The B. F. Goodrich Rubber Company, *Akron, Ohio*

Goodrich Cutless Bearings

Simpler Than Your Gasoline Engine!
Safer! Economical!



Electric starter now furnished, with 40-60 H. P. Diesel engine. Full Bridge Controls can be arranged. So efficient that air starting has been eliminated. Electric light generator can be furnished, too.

WRITE
For Full Information

Standard Motor Construction Company
178 Whiton Street **Jersey City, N. J.**

STANDARD DIESELS BEST

Yard and Shop

(*Continued from page* 168)

PEORIA LAKE TO BE NATIONAL SPEEDWAY

Peoria, Illinois has been selected as having the best geographical location in the country for the proposed permanent national water speedway. The Mississippi Valley Power Boat Association is the organization backing this project and Peoria was selected from among 86 cities which affiliate with this Association.

The plan is to make Peoria the center for the annual national regatta and at the same time the track which will be established on the lake will serve as a place where smaller regattas may be held at any time during the season and will provide an excellent accurately measured course over which engine and boat manufacturers may conduct speed trials.

FORD ORDERS DIESEL YACHT

Work has started at the shipyards of George F. Lawley & Sons, Neponset, Mass., on a new 130-foot all-steel Diesel yacht for Edsel Ford of Detroit, president of the Ford Motor Company. The boat, designed by Henry J. Gielow, Inc., is scheduled for delivery on December 1, 1929.

The yacht is designed with a plumb bow and a slightly overhanging stern to give a length on the load water line of 121 feet and 6 inches. The beam will be 23 feet and the draft 7 feet 6 inches.

Accommodations include three double staterooms, two single staterooms and four bath rooms. The galley, pantry and forward part of the main deck house, 20-foot dining room and a 26-foot living room are on the main deck.

A large combination observation room and wheel house with the captain's stateroom is on the upper deck. Quarters are provided for a crew of 12 men.

The interior finish will be in paint selected to match the furnishings in a harmonious scheme chosen by the owner. All of the exterior deck work will be in teak.

The power plant will be two eight-cylinder, 300 horsepower Bessemer-Diesel generators; and two KW Cummins-Diesel generator sets. The yacht will have a speed of 14 miles and a cruising radius of 3,500 miles.

Small-boat equipment will include a 23-foot owner's launch, a 20-foot crews launch, an 18-foot life boat and a 16-foot dinghy.

L. I. DISTRIBUTOR FOR STOCK CRUISER

Chenevert & Company, of Detroit, builders of the Corsair line of standardized motor boats, announce the appointment as distributors for the Metropolitan district and Long Island of the Garlock & Brewster Marine Sales Co., with headquarters at Bay Shore, L. I. They have opened a New York office at 11 West Forty-Second street. The Brewster family at Bay Shore has a record of four generations of service to boats and boatmen.

ENGINE MANUFACTURER EXPANDING

For the past six years the Kermath Manufacturing Company of Detroit, Michigan, builders of marine engines, has found it necessary to enlarge their plant facilities each year. This steady growth and expansion program finds the Kermath plant today one of the largest in the industry.

A new three story addition, comprising more than 10,000 square feet of floor space, has just been completed. A portion of this space is being devoted to the new and enlarged Service Department, where owners' motors are accepted for factory overhaul and where used motors are now being rebuilt for the resale demand. Another part of this new factory addition is already in full swing, with new high speed machines to facilitate the present manufacturing needs of the Kermath Company. Still another portion is being utilized to supplement the Test Room requirements. At present there are 24 such stands running day and night, where each motor receives a thorough run-in and is repeatedly tested by a staff of experienced mechanicians.

Mr. J. B. Barr, President and General Manager of the Kermath Manufacturing Company, recently stated that yearly demands for marine engines has so exceeded expectations that it is difficult to maintain a steady conservative factory expansion program. Instead, the most optimistic expansion plans for the future have repeatedly fallen short of meeting the next year's requirements of marine engines.

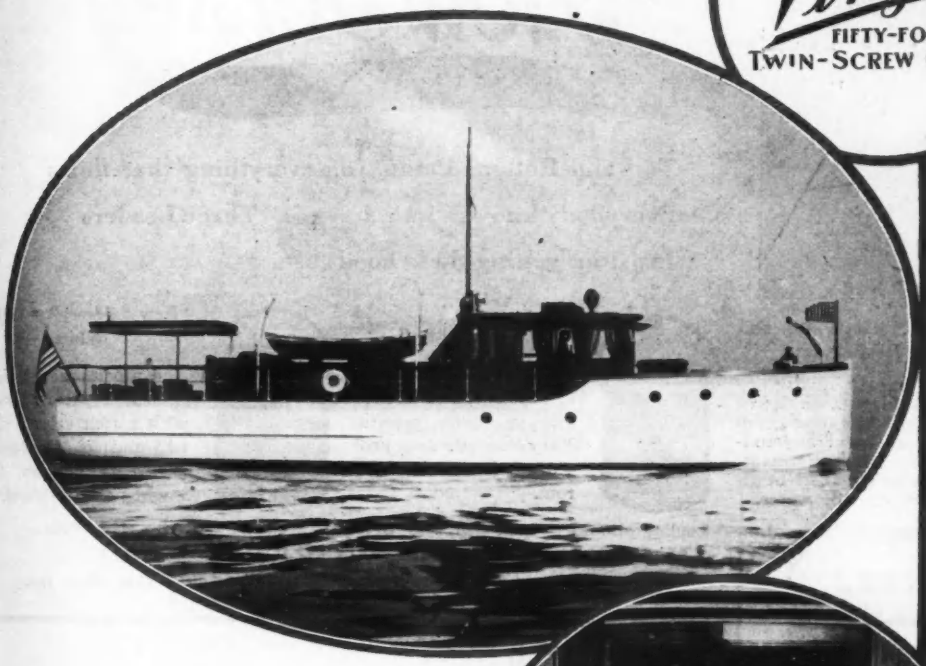
The conditions which have taxed the Kermath facilities to the limits are not confined to the United States. In the past twelve months, Kermath's export business has shown an increase of 40 per cent over that enjoyed in 1927.

(*Continued on page* 172)

Advertising index will be found on 3rd last page

Beauty... Livableness *and* Sea-ability...

Vinyard
FIFTY-FOOT
TWIN-SCREW CRUISER



The staterooms are unusually large, handsomely finished, well ventilated and lighted.

RARE beauty, livableness, and sea-ability are reflected throughout the Vinyard Fifty-foot Twin-screw Motor Yacht. Its congenial home atmosphere, comfort and conveniences are unmatched by any other cruiser in its price class. Its rugged construction will endure beyond that of the average boat. Its brilliant performance at sea, and ease of maneuvering in tight quarters leave nothing to be desired.

Frigidaire automatic refrigerator, Delco lighting plant, Delco water pressure system, and CO-2 fire protection are standard on Vinyard Cruisers. Choice of twin Kermath or Sterling six-cylinder engines give speed of sixteen miles per hour.

There is only one Vinyard Fifty-Footer remaining for summer delivery. Write today for illustrated literature and price.

Also building 55-foot twin-screw cruisers

VINYARD SHIPBUILDING COMPANY

Designers and Builders of Yachts and Cruisers of the Highest Class

MILFORD, DELAWARE, U. S. A.

Mention MOTOR BOATING, *57th St. at Eighth Ave., New York*

1889 40 Years of Successful Paint-Making 1929

"New Jersey"

Top and Bottom Paints for everything that floats

Everybody knows "New Jersey's" Three Leaders

Insist on getting these goods

"New Jersey" Ship and Deck Paint

The most satisfactory paint for use on spars, decks, floors, stairs, top sides and general woodwork. Used on canvas, wood or metal. Not affected by salt water.

"New Jersey" Copper Paint

An absolute protection against barnacle teredos and vegetable growth. Very smooth and provides a fast racing bottom.

"New Jersey" Yacht White

The most practical finish for a yacht. Dries with a rich velvety finish and is absolutely permanent. Can be washed and scrubbed.

Write for copy of "Davy Jones' Locker" booklet—tells you how to paint a boat. Will be sent free.

NEW JERSEY PAINT WORKS

Wayne and Fremont Streets HARRY LOUDERBOUGH, INC. Jersey City, New Jersey

Sold by all marine supply stores—send for color cards and name of nearest dealer

Yard and Shop

(*Continued from page* 170)

NEW FERDICO WEST COAST REPRESENTATIVE

George S. Lacey of San Francisco, manufacturers' representative, who makes a specialty of marine products, has been appointed by L. W. Ferdinand & Co., Boston, distributors of Jeffery's Marine Glues and manufacturers of Ferdico products, as their Pacific coast representative.

While L. W. Ferdinand's business on the coast is being ably taken care of by their local jobbers, the increase in the demand for and the use of marine glues has become so great in the last few years that they felt a personal representative was necssary to better serve the territory. Though Jeffery's Marine Glues have been in use over three generations, modern demands in boat building make it imperative that everybody including builder, dealer, and owner will be thoroughly familiar with marine glues and their uses. It will be Mr. Lacey's concern and pleasure to educate the trade to the uses of the different kinds of marine glues and their particular applications.

SPARK PLUGS STAND HARD TEST

Gar Wood's remarkable feat in establishing a new world record on the water in Florida opened the 1929 marine racing season auspiciously for Champion Spark Plugs, said R. A. Stranahan, President of the Champion Spark Plug Company, in commenting on the reports about the results on Indian River.

Miss America VII, the famous speed boat which set a new motor-boat mark by attaining a faster than express train speed of 93.123 miles per hour, was equipped with Champion Aero Nine Spark Plugs, and after the race, both Gar Wood and Orlin Johnson, chief mechanician, telegraphed the Champion Spark Plug Company their thanks for the very important part the plugs played in the record-breaking feat.

DEMONSTRATING RUNABOUTS IN PHILADELPHIA

Out of the thousands of Philadelphians who saw Chris-Craft for the first time at the Philadelphia Automobile Show in January there were hundreds who were quite anxious to take a Chris-Craft ride.

Accordingly when the spring weather arrived around the middle of March the Chris-Craft distributors in Philadelphia, Marine Equipment & Supply Company, of 116 Walnut Street, placed their demonstrator in the water. Their showrooms are located within a stone's throw of the Delaware River.

A number 12 model Chris-Craft sedan, with a speed of 32 miles per hour, was selected. The sedan model of course offered wonderful protection from the March breezes.

All those who take a Chris-Craft ride do not purchase a boat but they all enjoy the new and thrilling experience and leave with a determination to some day own a Chris-Craft. That of course is the main purpose of the demonstration ride.

Many, however, decide they will not be without a Chris-Craft any longer and then and there place an order, quite anxiously inquiring as to the date of delivery.

Among the prominent Philadelphians who ordered a Chris-Craft for delivery this spring are Mr. O. C. Lippencott, Mr. R. E. Eggleston, Mr. H. H. Barton Lewis, Mr. H. B. Larzelere, Mr. James Carstairs, Mr. H. H. Demmert, Mr. G. K. Kaiser, Mr. J. F. Pollard, Mr. A. P. G. Rose, Mr. J. F. Holmes, Mr. Ferdinand S. Carter, and Mr. A. E. Pew, Jr.

THE WATERWITCH

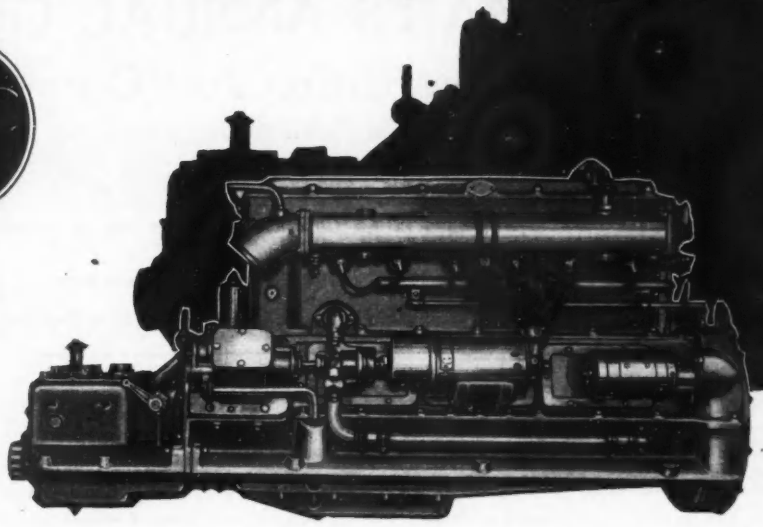
The Dachel-Carter Boat Company of Benton Harbor, Michigan, well known as builders of fine curisers, now step into the outboard field and announce a new craft designed to carry any make and size of outboard engine. It is called the Waterwitch and is built in two models—the 13½ Foot Stepabout designed for pleasure and racing purposes, and the 16-foot Runabout built as a family pleasure boat.

In the runabout, an adjustable driver's seat with swivel back chair permits either right or left hand driving. Two double seats, upholstered in Zapon Spanish leather, have adjustable backs so that passengers may ride either forward or backward and provision is also made to drop seat backs so that sleeping accommodations are supplied for two. A folding table stored under the forward seat provides for picnicking or card-playing in the boat.

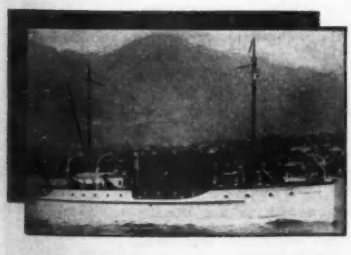
The Stepabout is a fast step plane which combines the desirable qualities of speed, seaworthiness and comfort. Built to stand the strain of carrying the highest powered motors, it is equally as well adapted to pleasure as racing purposes.

(*Continued on page* 176)

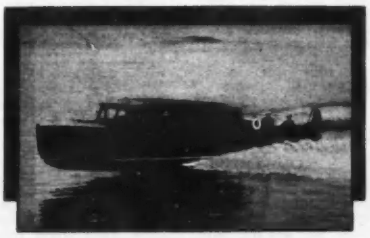
HALL-SCOTT



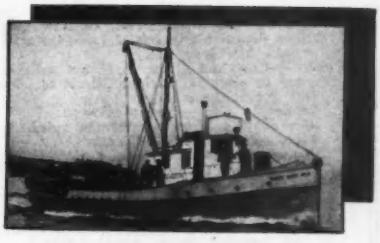
HALL-SCOTT MARINE ENGINES with silent, integral reduction gears, make possible a boat performance equal to 1½ times the same horse power where direct drive is used. The built-in reduction gear, pioneered by Hall-Scott is the only practical solution of propulsion for the heavier type cruiser.



Cancolim 75 feet. Designed and built by Hoffar-Beeching Shipyards, Ltd., Vancouver, B. C. Two Hall-Scott HD-6 Reduction Gear Engines. Speed 15 knots.



The Hall-Scott powered Robinson Seagull built by Robinson Marine Construction Co., Benton Harbor, Mich., has a speed of 32 M.P.H.



East Bay No. I and II 60 feet. Owned by the East Bay Packing Co., Vancouver, B. C. Hall-Scott HSR-6 with 3 to 1 Reduction Gear. Speed 9 M.P.H.

HALL-SCOTT MOTOR CAR COMPANY

DIVISION OF AMERICAN CAR AND FOUNDRY MOTORS CO.

Factory and General Offices

HEINZ AVENUE AT FIFTH STREET, BERKELEY, CALIF.

Eastern Factory Branches

217 West Fifty-Ninth Street
NEW YORK CITY

500 East Jefferson Street
DETROIT, MICH.

Southwestern Factory Branch

240 Avalon Boulevard
WILMINGTON, CALIF.

Northwestern Factory Ba

902 Western Avenue
SEATTLE, WASH.

British Columbia Representatives: **HOFFAR-BEECHING SHIPYARDS, LTD., 1927 Georgia St. W., Vancouver, B. C.**

Every Motor Boatman and Sailor Needs This Book

THE YACHTSMAN'S ANNUAL GUIDE

1929 Summer Edition Just Out

The Only Yachting Hand Book of Useful Boating Information

Profusely Illustrated

Combines Important Data to Be Found in All Government Publications of Interest to Motor Boatmen and Yachtsmen

Published by Yachtsmen for Yachtsmen
Founded 1877
No Boat or Nautical Library Complete Without It
Valuable Alike for Novice or Expert
Over 500 Pages
Published January and July of Each Year

PARTIAL LIST OF CONTENTS

Sixty complete motor boatmen's charts covering the entire Atlantic Coast, Great Lakes, important harbors and rivers.
Tide tables showing time of high and low waters, range of tides, etc., at more than 1,000 different locations.
List of important lights on Atlantic Coast, their characteristics, fog signals, etc.
Current tables showing time of slack water, strength of current, time of current changes, etc., at all important points.
Latitude and longitude tables, giving the locations of over 1,000 points, aids to navigation, etc.
List of ports where numbers of motor boats are assigned.
New York-Florida, motor boat inside route—
A complete description of the course for motor boats to follow, where to get supplies, anchor, etc.
Where to Cruise—
A chapter giving numerous suggestions and hints on cruising, description of the best cruising waters in the East and on the Great Lakes.
Yachting signal code.
List of all yacht clubs.
Trent Canal.
Notes about Government Coast and Geodetic Charts.
Where to buy Government charts.
Cruising to Florida in twenty days.
How to form a yacht club.
Duties of yacht club officers and members.
Tables of times of high and low tides.
Tables showing time of sunrise and sunset.
Details of motor boat routes, New York to Albany, Albany to Buffalo, Albany to Thousand Islands, Albany to the St. Lawrence River and Montreal, New York to Philadelphia, Buffalo to Detroit, Miami, Fla., to New Orleans, etc., etc.
Motor Boatmen's Charts of Lake Ontario, Lake Erie, Lake Huron, Lake Michigan, etc.
Numbering Law—How to obtain numbers for your boat.
Index to principal harbors which are described.
Tide commutation table.
Anchorage rules—Port of Boston.
Port of New York—Anchorage rules.
Rates of Pilotage—New York.
Distances—Boston to New York.
Lights—New York to Boston.
Distance and Bearings—New York to Maine.
Complete sailing directions (79 pages), entire Atlantic Coast, Maine to Gulf of Mexico. Detailed information on coastwise navigation, as well as complete instructions for getting into all harbors, bays, sounds, rivers, etc. Compass directions, distances, descriptions and locations of shoals, rocks and other dangers to navigation. The waters described in detail include Atlantic coast, coast of Maine and all harbors and rivers; New Hampshire, Portsmouth Harbor, Massachusetts and all of its principal harbors; Massachusetts Bay, North, South and West shores Cape Cod Canal, Cape Cod to New York, Buzzards and Narragansett Bays and Long Island Sound, including motor boat and yacht harbors, anchorges and tributary rivers. East River to New York City, South Shore of Long Island, New York Bay and Harbor, Coast of New Jersey, Hudson River, Chesapeake Bay, Delaware River and Bay, Hampton Roads and all tributary waters, Potomac River, Inside Route—New York to Florida.
Water Routes, New York to Chicago and Duluth, including New York State Canals, sailing directories on the Great Lakes.
Canadian Canals, sailing directions, distances and detailed information.
Illustrations and descriptions of various rigs of sailing vessels, spars, sails, rigging, etc.
Illustrations and description of seizings, hitches, bends, splices, etc.
Nautical dictionary, defining and describing over 1,000 ship and boat names and terms.
Signals, semaphores, codes, weather and storm signals, wig-wag.
The compass and buoys.
Useful information of use on board motor boats.
Help in case of accidents.
Definition of astronomical terms.
Buoyage system.
What to do in a storm, use of oil.
To prevent collisions.
Boat service, keeping a log.
Barometer, weather signs, signal stations, etc.
Life-saving signals, information about sails, etc.
Speed and knot table.
Compass points and degrees.
Various tables useful to motor boatmen.
A. P. B. A. Allowance tables.
Hints on motor boat handling.
Ignition and battery information.
Locating and what to do in case of engine trouble.
Hints on installation and operation of motors.
Government regulations and equipment required to be carried on board motor boats.
Yacht routine.
Flags and how flown.
The International Code of Signals.
Sailing directions and entire set of courses from Nova Scotia to Florida (51 pages).
Marks and symbols used in charts.
Rules of the Road at Sea.
Laws relating to yachts and motor boats.
Districts of the U. S. Steamship Inspection Service.
To Find Time of Slack Water at any point.
Buoys; what they mean and how to use them.
Tidal Current of Light Vessels.
New York State canals and navigation regulations.
Sailing directions on the Great Lakes.
Signals for the opening of drawbridges on the Great Lakes.
Yacht Club Constitutions and By-Laws.
Distances on the Mississippi River.
Important Motor Boat Courses.
Primary and secondary sea coast lights, their characteristics, fog signals, etc.
Duties of regatta committees.
Navigational aids and the use of charts.
Distances between points on Great Lakes.
The Yachtsman's Log Sheets.
The America Cup Races.

The Yachtsman's Guide will be sent postpaid upon receipt of price, $1.50

The Yachtsman's Guide Flag Supplement, $1.00, Both for $2.00

MoToR BoatinG

57th Street at Eighth Avenue, New York, N. Y.

Advertising index will be found on 3rd last page

THE NEW FAYBOW 21-FOOT FORTY-MILE RUNABOUT

Three Outstanding Models

The New FAYBOW 21ft. Forty-mile Runabout

A BRILLIANT, seaworthy craft that rides comfortably at high speed . . . possessing many desirable features never before successfully incorporated in a boat of this size. Beautifully designed, luxuriously appointed and exceptionally fast. A boat that will compel admiration at any watering place. Length 21 ft. Beam 5 ft., 9 inches. Extreme draft 18 inches.

The FAYBOW "MIDDY"

THE aristocrat of outboard craft. Actually the finest built outboard boat on the market . . . possessing all the appearance of a larger and more costly craft. Exceptionally seaworthy and dry. Capable of 27 mile speed or faster. Length 16 ft. Beam 52 inches. Draft 5 inches.

The FAYBOW "STATIC"

THE fastest hydroplane afloat. A new type of hydroplane that is built to stand the terrific strain of exceedingly high speeds and to hold its own in rough water. Comfortable to ride in. Length 13 ft., 9 inches, (weight 135 lbs.) and 11 ft., 9 inches, (weight 85 lbs.)

WRITE FOR FULL INFORMATION

FAYBOW

FAY & BOWEN ENGINE COMPANY, 104 Lake Street, Geneva, N. Y., U. S. A.

Woolsey's

TUNGSPAR VARNISH

Will Not Turn White

Waterproof and Lasting

Yacht White
Glisto White Enamel
Deck Paints
Engine Enamels

COPPER "BEST" PAINT

For Wooden Bottoms

Iron and Steel Bottom Compositions

WOOLSEY'S COPPER OLEATE

(The Best on the Market)

Are Standard from Coast to Coast. Insist on the Genuine. Do Not Accept Substitutes.

C. A. Woolsey Paint & Color Co.

JERSEY CITY, N. J.
TAMPA, FLA.

STOCKS IN ALL PORTS

SAN FRANCISCO, CAL.
HOUSTON, TEX.

Yard and Shop

(*Continued from page* 172)

NEW YORK'S FINEST SHOWROOM

The Horace E. Dodge Boat Works have made a quick transformation in the quarters they now occupy for their New York showroom. In less than a week's time the quarter's were changed from an ordinary store to a most artistic Spanish setting. Balconies and porticos have been built in and the customary yellow and red awnings lend a distinct outdoor atmosphere to the showroom. The artificial lighting effects are also such as to give the impression of sunlight and summertime. Fine Spanish furniture and paintings on the wall help to emphasize the air of refinement which dominates the entire showroom. The boats themselves are well displayed and so arranged that a visitor can readily inspect them without having to climb about. Of the three models shown, one is the 20 foot runabout, the other a 26-foot sedan type runabout and the third a larger 30-foot runabout. These are supplied with various choices of power plant with Dodge and Universal engines n the smallest boat, a choice of Scripps or Lycoming engines in the 26 foot runabout and a Hall Scott or Packard as the power plant in the 30 foot boat. Naturally the speed in each will depend on the power plants selected and a mile a minute is safely promised for the largest boat with the biggest engine.

COMBINATION GREASE GUN AND SUMP PUMP

One of the handiest devices for the yachtsman is a powerful screw-pressure oil and grease gun which, by a slight adjustment, becomes a quick-acting pump and squirt gun. It is made by Snow & Petrelli Manufacturing Company, of New Haven, makers of the famous Joe's Reverse Gear and Hartmann Universal Joint.

To make the change described, the cap of the gun is loosened a couple of turns. This disengages the screw and allows the plunger to be pushed and pulled up and down freely. Tightening the cap restores the screw pressure. Double cup packings give both suction or pressure according to pull or push. The cap may be entirely removed if it is desired to load the gun with heavy grease, the top of the barrel being flared to allow easy entrance of the packings.

Oil and soft grease can be sucked up to fill the gun or by t same action, oil, water, etc. can be sucked up out of the s The gun is 16 inches long with a nozzle for sump pump and nipple for grease gun.

ON RUNNING LIGHTS

The 1929 edition of the Perkins catalog contains matter interest to all the sea-going public from canoeist to yachtsm The new year has brought with it a number of new additions the famous line of Perko products. Their new combination ru ning lights, in particular, have been received with enthusiasm.

Owners of outboard motorboats have taken quickly to t Perko cast bronze combination light and the Perko streamli combination light, both of which have been designed to meet long felt need among the owners of smaller craft. The form device is a combination light and flagpole holder built on attractive streamline design. Both these lights are featured by patented socket for changing the bulbs. In the streamline li this socket screws flush with the rear of the light. In the co light the riding bitt cleat is affixed to this socket in the rear the light. The Perkins 1929 designs have modernized prac cally all running lights, lighting fixtures and polelights.

CORRECT LUBRICATION AT EXTREME SPEED

The demands on any lubricating oil are severe in racing cr and when Gar Wood was successful recently at Miami Beach establishing a speed of 93.123 m. p. h., it was essential that he u a lubricant which would be absolutely depended upon.

It is significant that the Dupex oil which Wood used was tak from a dealer's stock and was in no way specially prepared. fact, stock Duplex oil is the usual lubricant for all of Wo high powered racing craft, and it is gratifying for the aver yachtsman to know that the oil he uses is identical in quality w that which successfully lubricates 1,100 h. p. at speeds in ex of 90 m. p. h.

(*Continued on page* 178)

"We expect to continue the use of your equipment on our new yachts"

—COX & STEVENS

The ARCADIA

COX & STEVENS, Inc.
NEW YORK CITY November 14, 1928.

The American Engineering Co.,
100 Broadway,
New York, N.Y.

Gentlemen:-

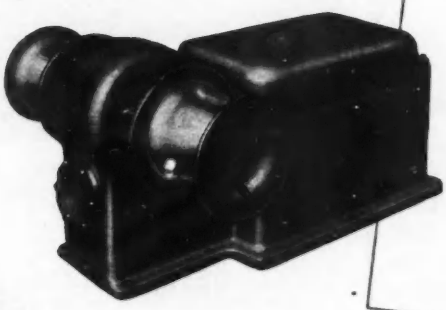
We have for many years used on various of our large yachts, equipment and auxiliaries of your manufacture.

It gives us pleasure to state that we have found your equipment entirely satisfactory, that your service department is well organized, and that our business relations have in every way been all that could be desired.

We expect to continue the use of your equipment in our new yachts, and wish you every possible success.

Very truly yours,
COX & STEVENS,
By

Unchallenged... the high standard of quality in the deck machinery of the handsome new yacht "ARCADIA"! Equipped with A-E-CO Horizontal Electric Hoist for the quick handling of boats and stores.



A-E-CO
HORIZONTAL
ELECTRIC HOIST

SELECTION of standard A-E-CO Auxiliaries on outstanding yachts indicates the esteem in which they are held by the most critical engineers and the most fastidious yachtsmen.

The Horizontal Electric Hoist, used on the yacht "Arcadia," is compact and widely used as a boat and sail hoist. Although it takes up little space, it is unusually powerful, and can be used whenever power is needed for a pull or lift.

American Engineering Company

2419 Aramingo Avenue - - - Philadelphia, Pa.

Export Department, 50 Church Street, New York

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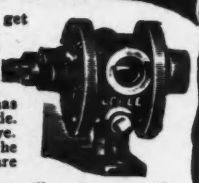

You can't get a better or more reliable pump than the Lobee because there isn't a better one made. It has been the World's Standard of Pump Quality for 25 years. No other pump has proven so popular in the marine trade. Simple, compact, noiseless and positive. These pumps will outwear the engines to which they are attached.

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1790 Niagara Street, Buffalo, N. Y., U. S. A.

YARD & SHOP

(Continued from page 176)

ELDRIDGE REPORTS MUCH ACTIVITY

The noticeable increase in boating enthusiasm on the part of the public in and around New York has been strongly reflected in the activities in yacht brokerage offices. William E. Eldridge, well known in motor boat racing circles recently established a new office for the sale of fine yachts reports that many boats have been successfully placed with new owners as a result of his effort. He has on his lists many fine yachts from small to large sizes and these are offered at prices which are most reasonable for the types of boats offered. Not only does his office handle the sale of used boats, but he also undertakes the charter of large yachts and handles the insurance details in connection with boats of all kinds.

N. Y. ENGINEERING SOCIETY EXHIBITS MODELS

The New York Society of Model Engineers held its first exhibition a short time ago in the Bush Terminal Building of New York City and included among its exhibits a section devoted to marine models. There was a considerable display, ranging from step hydroplanes to displacement models, and a number of one and two cylinder marine engines of both two and four cycle type, several of which were developed along rather unusual lines.

A Baby Gar Black Beauty Runabout operated by R. W. Samuelson in taxi service at Palm Beach. She is powered with a 200 h. p. Scripps

DETROIT MARINE SALON

Announcement is made by the American Car and Foundry Company of the opening of a new marine salon at 500 East Jefferson Avenue, Detroit, Michigan. Not only will the popular A. C. F. cruiser models be displayed but also Hacker runabouts, Laconia and Hooton outboard hulls, Old Town dinghies, several models of Hall-Scott, Gray and Chrysler engines, Stearns generating sets, Johnson and Elto outboard motors, Waterbury clocks and CO_2 fire extinguishing system.

SPARK PLUG IS A HARD WORKER

Few mechanical contrivances rival the spark plug in the strain their regular functions impose on them, says O. C. Rohde, chief engineer of the Champion Spark Plug Company. For every mile a boat runs each of its spark plugs must fire its charge about 2,000 times. Not only must the spark be timed accurately to the thousandth of a second but the plug must withstand heat variations changing rapidly from the temperatures of the outside air up to as high as 1,800 degrees.

AMERICAN RUNABOUT AGENCIES IN SCANDINAVIA

Foreseeing the demand which is certain to develop very soon in Scandinavian countries for fast American runabouts, Baron Otto Raben Levetzau, a well-known young Scandinavian sportsman, has taken the agency for Chris Craft in Denmark. The agency is known as the General Speedboat Company, and his intention is to open additional salesrooms in Stockholm, and in cities in Norway and Finland within a short time.

A great deal of interest and admiration was manifested when the Baron demonstrated one of the Chris Craft 24 footers before a considerable gathering in Copenhagen.

Advertising index will be found on 3rd last page

America's fastest

are finished with LIONOIL

In regatta after regatta motor boats finished with Berry Brothers' Lionoil sweep to victory. Here's the "fastest" finish afloat. ¶Notable among Lionoil-finished craft is the new Hacker Dolphin pictured above. In winning its class at the Palm Beach Regatta last February this remarkable boat showed a thrilling, consistent average of 41.38 miles per hour. ¶Lionoil sinks deep into the wood, seals the pores and provides a deep-rooted anchor coat for succeeding coats of spar. The varnish will not chip or peel and you can use one less coat than usual. ¶Work this economy in your plant—give your boats real protection. Write for our new booklet that gives all the facts about Lionoil, or have a representative call.

Address Marine Department for Information, Prices and Samples.

BERRY BROTHERS
Varnishes Enamels Lacquers
Detroit, Michigan *Walkerville, Ont.*

Member National Association Engine & Boat Manufacturers, Inc.

What the Novice Should Know

(*Continued from page* 39)

ships (at right angles to the keel) and these in turn carry the fore and aft timbers to which the engine is bolted. Another installation frequently used in lightly built runabouts involves the use of two longitudinal beds running practically the entire length of the boat. This is excellent practice and helps a great deal in eliminating vibration.

Chines are longitudinal pieces used in flat and vee bottom boats extending from stem to stern at the junction of the sides and bottom. Deadwood refers to that solid part of the keel at the stern of a boat through which the propeller shaft generally runs.

This covers the more important parts in the framing of the hull except for those members which carry the decks. Deck beams are crowned (curved) pieces running athwartships between the tops of the frames and resting on the clamp which connects the frames. They resemble the frames in that they are curved athwartship pieces but are curved considerably less than the frames and carry the deck planking while the frames take the side planking.

Carlines are pieces which run fore and aft and are inserted between deck beams where an opening such as hatch, skylight or cabin cuts the deck beams.

We now come to the planking and decking. So far our skeleton does not bear a great resemblance to a boat but it rapidly takes shape as the side planking and decks are put on. The principal methods of planking are the carvel or smooth, clinker or lapstake, and the double. Of these the carvel is most common. Planks are fitted side by side and fastened to the frames so that when completed the hull presents a smooth surface all over. In this method the edges of the planks are beveled with the inside edges fitted tight and the outside open about an eighth of an inch(more or less depending on thickness of plank). This makes a V-shaped seam into which a layer of caulking cotton is driven and then the rest of the seam is filled with a mixture of white lead, putty and varnish, or else a special seam composition. When the boat is put in the water the planks swell tight, close the seam and make the separate planks as tight as though they were a single board.

The clinker or lap strake type is the planking generally found on sea skiffs and dories. In this construction no caulking is used, but the edges of the planks are allowed to overlap and are then riveted together at close intervals. This has the great advantage of exceptional strength for the weight of material and at the same time it eliminates the necessity for caulking seams. With the smooth hull, in the event of damage, replacement of one or more planks is a comparatively simple matter.

In double planking, a thin layer is first applied to the frames, often diagonally, with another layer then placed lengthwise. Between these a thickness of canvas is laid in waterproof marine glue, making an extremely strong and water tight job.

Decking follows the same general style as smooth planking except that the planks are of a uniform width and generally quite narrow. In narrow widths the planks come and go less with moisture and make a more satisfactory job. The individual planks may be run either straight fore and aft, as is customary on the larger boats, or they may be sprung to follow the curve of the edge of the deck. Very often a waterproof job is secured by covering the deck with canvas laid in thick paint or marine glue.

All the finishing work on a boat such as cabins, skylights, hatches and so on, are classified as joiner work. This is the last of our general divisions of the boat and as the various types of cabins were discussed previously we shall pass over this particular subject here.

Cockpits are sunken portions of the deck and are of two types. If the floor is below or near the waterline, it is rarely made watertight, and rain water, and spray go into the bilge where it must be pumped out. Where the floor is fairly well above the water line, it may be laid tight like a deck, and scuppers of lead pipe carry overboard any water which finds its way into the cockpit, making it self-bailing. Where decks are carried right across without lowering they are of the flush deck type. Coamings are the vertical pieces found around the sides of cockpits and other openings. They project above the deck and prevent water flowing along the deck from getting inside.

In passing it might be well to mention a word or two about various types of fastenings. For the heavy work about the boat, such as the keel, deadwood, stem, engine beds, etc., galvanized bolts are in general use on account of their being both inexpensive and strong. For planking, copper nails riveted over copper burrs make an entirely satisfactory fastening, while galvanized nails clinched on the inside are frequently used where cost is an important factor. Brass screws are expensive but make an excellent system of fastening, as they take less time to apply and leave the inside of the hull clean and smooth. It is poor practice to use both iron and bronze, or copper close to each other under water, especially salt water, as an electrolytic action is set up which eats the iron away much faster than it would rust under normal conditions.

We come now to a consideration of the various points to be looked into in the purchase of a boat, either new or used. We shall assume for our purposes here that the prospective purchaser has decided that a cruiser in the neighborhood of thirty feet long and of moderate speed and power is best adapted to his requirements. The first question that arises is whether a new or used boat will be the better buy.

Ordinarily for the buyer of a small boat, this question is quickly settled by the size of rubber band required to surround his bank roll. If his resources are ample, then we do not hesitate to recommend a new boat either built to his own order, or, if he prefers, a standardized craft. Nowadays financing companies make it possible for the man of average means to purchase a stock boat on convenient terms, much as he would buy an automobile. But often a man's investment is restricted to very definite limits so that in order to get a boat of a size that will meet his requirements, it is necessary for him to forego the advantages of a new boat and select one which has seen some service.

There is little question but that a new boat will give the owner a mimimum of trouble and expense in its operation, and modern marine motors have been developed to a point of reliability where an operator can place the same dependence on his boat that he does on his car. However, there is no good reason why anyone should hesitate at starting in the boating game with used craft any more than he should hesitate at buying a used car. If the operator has the faintest conception of the way to run an engine, either marine or automobile, and even a slight acquaintance with the few adjustments necessary for ordinary operation, and if he wants experience, then a used boat will certainly supply what he is looking for. If he succeeds in nursing an engine which has a propensity to take an occasional rest through several seasons of running by the end of that time he will have acquired a more or less intimate knowledge of his engine, and a confidence that he can never hope to have if he is always in mortal dread that sometime his nice new motor will fail to respond to the gentle caress of his foot upon the electric starter.

In fact one of the best ways for the novice to be initiated into the mysteries and pleasures of boating is to start with a small outfit which is not in the best running condition and figure on doing all the work of service and maintenance himself, within certain limits. In qualifying that last statement, we mean of course that there are certain major overhauling jobs which require so much technical knowledge as to be beyond the capabilities of the men of average mechanical ability. Certain electrical work, such as the repair of magnetos and generators, is of that nature. If he gets real pleasure out of the constant care and servicing of his boat, likes to tinker with the engine, and actually enjoys his boating when it is not all smooth sailing and is accompanied by mishaps, because of the experience which he knows he is getting, then, and not until then, he is a real dyed-in-the-wool boatman. If he starts in the small, modest way we have suggested, and generally works up to a larger craft, when he finally gets that ideal boat which is the dream of every true boatman, he will be in a position to really appreciate it.

A word or two about the amount of boat—of we may put it that way—that can be bought for a given amount. It is obvious that if a buyer has only a thousand dollars to spend, he cannot expect a great deal in the way of a new cruiser. On the other hand, if he looks around a bit he might very well locate a used boat that would just suit him and which would come well within his price limit and still leave enough to put it in good shape. In general, the older the boat the bigger the craft one can get for a given amount, but it would probably be unwise for the novice to experiment with anything too old or too big on account of the heavy expense which might be incurred.

As for the relative merits of the standardized and custom-built boat, this is largely a matter of personal opinion. If the buyer has no individual ideas which must be incorporated into his boat, he will be able to pick out from the great number of standardized cruisers on the market today, a craft which will be decidedly satisfactory. If, on the other hand, he wants certain special ideas of design, layout or construction incorporated into his boat, then the boat built to his order is the answer to his problem.

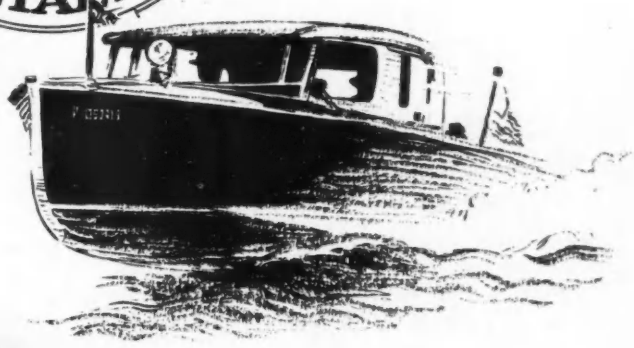
The purchase of a used boat involves a great number of points which have to be watched, if the buyer is to get full value for his money. We cannot emphasize too strongly

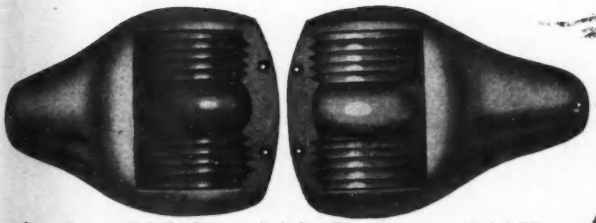
(*Continued on page* 182)

ERICO-KAINER

MARINE SPECIALTIES

Standard Equipment on Hackercraft





Streamline Side Lights, Polished Brass or Nickel Silver

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YOU can judge a Product by its Users. Hackercraft, available in five models, is one of America's fine boats on which Erico-Kainer equipment is standard.

Erico-Kainer Marine Specialties are carefully manufactured of cast brass and nickel silver, giving great strength and durability as well as beauty of design and finish.

Truly it may be said that Erico-Kainer Marine Specialties are "recognized throughout the world as a standard for comparison."

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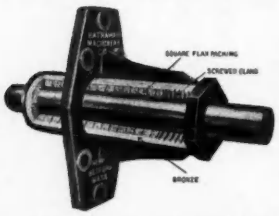
Experiments are almost invariably expensive. Why invite trouble and unnecessary expense? When you install a Hathaway, your stern bearing troubles vanish. You reap the benefit of our years and years of experiment and test.



Vibrationless
Quiet Running
Long Life
Economical
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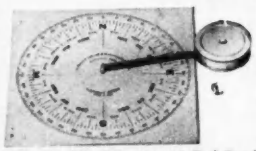
NEW PATENTED WONDER

ONLY 10 SECONDS to Find Your Course and Distance



THIS new way is so simple. Center compass dial over your position. Draw tape across the center of compass rose on your chart. Turn the dial until it reads the same. Draw tape to any desired point on your chart. READ YOUR COURSE on the DIAL *and the* DISTANCE on the TAPE.

The absolute Accuracy and Fool-Proof Simplicity of this REVOLUTIONARY instrument is immediately apparent to ANYONE who has EVER SAILED THE SEAS.

For Every Boat that Has a Compass

Price Complete $3.75; with a tape having 1-80,000 nautical mile scale which covers most all cruising charts on the Atlantic and Gulf Coasts. The other side of the Tape is left blank so that one can easily make any desired scale.

Until your dealer can supply you order direct from us

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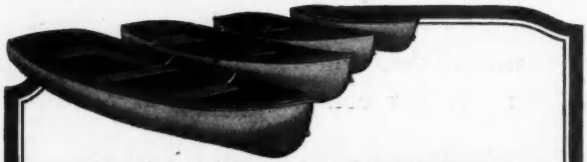

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Penn Yan builds more dinghies than any other boat builder!—a position which has been reached and maintained through sound craftsmanship.

Penn Yan dinghies are built to withstand the hardest service. Because of their composite construction they are uncommonly light—absolutely leak-proof—and easily rowed or carried—they can be exposed to the sun indefinitely without damage—and they soak up no water!

"WATER THRILLS," the new 1929 Penn Yan Catalog—in color—describes these dinghies in full—as well as all the other Penn Yan boats. A copy is yours for the asking. Write for it today!

PENN YAN BOAT COMPANY, INC.
155 Water Street **Penn Yan, N. Y.**

What the Novice Should Know

(*Continued from page* 180)

fact that if a friend with boat experience is available, he should be taken along for the inspection and trial trip. Then again, it is rarely advisable to buy a boat in the water, without first having it hauled out for an inspection of bottom planking and all underwater parts. Very often a boat presents a very attractive appearance in the water and performs well when she is badly in need of extensive repairs in the way of new planking underneath and this is concealed from the prospective buyer when the boat is afloat. The best time to buy a boat is in the fall or winter after she has been hauled out. In this way you see the true condition of the boat after a season's use when nothing has been done to cover up defects with paint and putty and so on. Besides, a boat can ordinarily be bought cheaper in the fall than in the spring, or during the summer, as the owner wants to save winter storage charges, and have it off his hands. In the spring there is more demand for boats, most of them are being put in condition, and they command a better price. The only difficulty with buying in the fall is the fact that it is practically impossible to arrange for a trial run while the boat is out of the water.

As far as the exact age or original cost of the boat is concerned, these factors are not of as much importance as might be imagined. In connection with the point of age, some boats are to all practical intents and purposes as good at ten years of age as they are at two, and it depends entirely on the quality of the original construction, and the use or abuse it has had as to how fast, and how much it has depreciated. We might take two boats of identical build and give one the proper care and attention it should receive and have it stand up to twenty or thirty years of good service, while the other, improperly handled and neglected, will be old after five seasons' use.

Nor is the original cost such a very important consideration. Properly cared for, boats depreciate much more slowly than automobiles and in some cases where a craft has had the best of care, equipment added, and a better power plant installed, it may be worth almost as much after a few seasons as it was the day it was built. So all this means then that the only rational way to determine a boat's value is by the purchaser's figuring out for himself whether the price asked is a fair one considering the amount of service it will still render the new owner, making due allowance for any necessary expenditures in the way of repairs, installation of new equipment, etc., and considering also the suitability of the craft to the purchaser's requirements.

Now the specific points which should be looked into in the inspection of hull and motor. In the first place it is always good to know if the boat has been the product of some reputable well known builder. If it is, the chances are good that she is properly designed and well constructed. At any rate stand off from the boat and survey it from all angles, to see if the lines are fair and clean without any bumps or hollows in the surface or sharp breaks in the lines. A well designed boat will always show a symmetry of lines and proportions regardless of the angle from which it is viewed.

Now examine the planking. Take the point of a sharp knife and jab it into the wood at various points about the hull. Test the wood in this manner where the planks join the stem and stern, where the plank ends but and pay particularly attention to the plank next to the keel (known as the garboard strake), and to the wood at and near the water line. The garboard strake is one of the first places to give out in the hull structure and the planking near the water line is another place likely to rot on account of being alternately wet and dry. A few tests with the knife point in various parts of the hull will soon enable a person to feel the difference between sound and rotten wood. The seams between planks should also be tested to see if the putty or composition has hardened and cracked or fallen out. This point is especially important below the water line. If the boat has been freshly painted, the amount of putty in the seams will give some idea of their condition. Do not be misled by a surface newly painted which appears to be perfectly smooth. Examine it closely for gouges and bad spots which have been filled with putty.

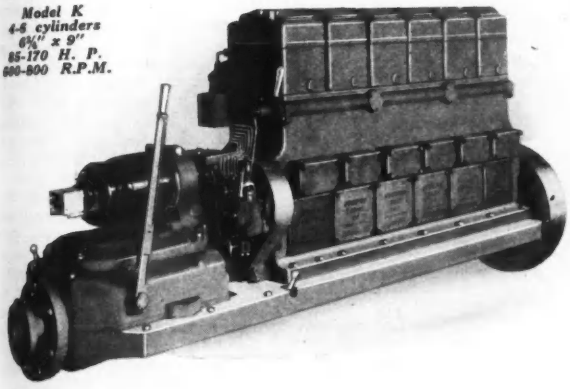
While outside the boat there are a few other points which should be looked into. If the decks are canvassed, see if the canvas is badly cracked so as to need replacement. Note, if the keel is made of two pieces, whether the scarph that joins them appears to be sound or whether the fastenings have started from hard usage so that the joint is weak. Also examine all items of equipment such as the rudder, stuffing box, propeller and shaft shoe (protecting the propeller), water intake strainer and so on. All of this equipment should be of bronze and if part is bronze or brass and part iron, examine the iron closely to see if it is badly eaten away as it is likely to be unless a piece of zinc has been attached to protect the iron from electrolytic action. Look at the propeller to see if the blades are badly bent or nicked

(*Continued on page* 184)

Advertising index will be found on 3rd last page

CUMMINS DIESELS

"The Fuel is Prepared"

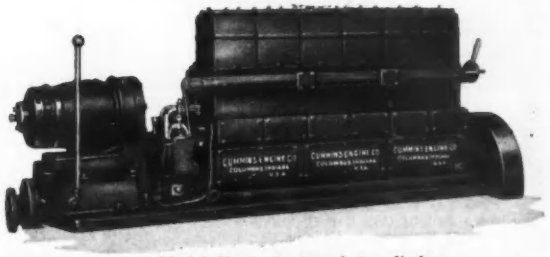


Model K
4-6 cylinders
6¾" x 9"
85-170 H. P.
600-800 R.P.M.

The CUMMINS Family

A rugged, simple engine built for real marine service of the best materials and of ample proportions.

Full Bridge Control
Electrically Started



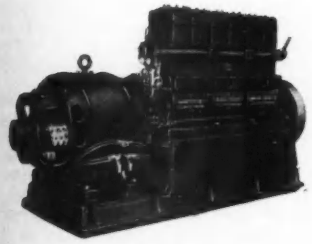
Model U—2, 3, 4 and 6 cylinders
4½" x 6" 16-60 H. P.
800-1000 R.P.M.

Model U

The engine that is making boat history, giving it a new standard of SAFETY and ECONOMY.

The fleet of CUMMINS equipped boats is increasing rapidly and is giving indisputable testimony for the advantages of Diesel power.

CUMMINS ENGINES are being installed in all types of boats, from a small 35-foot fishing cruiser to 100-foot yachts. They do not require any special construction in the boat, and in many cases where they are being substituted for gasoline engines, they have inevitably improved the performance of the boat, even when the rated horse-power of the CUMMINS was less than that of the gasoline engine which it supplanted.



Generating Sets
Model U, 5 to 30 K.W.
Model K, 40 to 85 K.W.

That CUMMINS GENERATING SETS are selected for many of America's finest yachts is an endorsement that needs no amplification—the chief engineers are paid to know engines.

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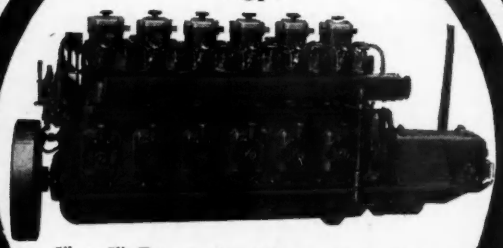
HILL-DIESEL

Pump Injection Type



5" x 7"—Two to Six Cylinders—20 to 75 h.p.
6" x 10"—Four and Six Cylinders—50 to 120 h.p.

Operate on Same Fuel as LARGE Diesels
They Burn the Fuel Clean
No Smoke or Fumes

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"Old Town Boats"

What the Novice Should Know

(*Continued from page* 182)

The pitch or angle at which the blades are set can be checked roughly to see if any blade is much out of true by holding a stick steadied against the ground so that it touches both edges of one blade. Each of the other blades should fit in the same manner at both edges at the same angle. The propeller shaft should be examined where it bears in the stuffing box to see if it is badly worn and needs replacement. (Sometimes a shaft worn at one end can be reversed, by having a small amount of machine work done on it.)

Finally, examine the keel to see if it is straight or whether it has hogged (that is, sprung up in the center on account of improper blocking when hauled out). Note too if the stem piece shows signs of mutilation from collisions with docks and floating objects.

Now go inside and make a thorough inspection there. Timbers may be tested with a knife as suggested for the planking but a better way is to bore a small hole which may afterward be plugged. The surface of the wood may be dark but the chips from below should show bright and clean and if the wood is free from borers and rot it will not cut too easily. While examining timbers, notice if any of the frames are cracked, especially where they make sharp turns in the bilge. Also note if they seem light for the size of boat. Now test the wood underneath decks and floors and inside lockers with the knife. Where no provision has been made for ventilation, dry rot is likely to have set in, in which case, the wood will have deteriorated to a fine dry powder, while the surface appears to be sound and intact. The only outward indications of this rot would be small white spots of mouldy appearance which later turn brown.

Accommodations in the way of sleeping quarters, galleys, etc., are points in which the buyer probably needs no assistance. He knows better than anyone else whether the arrangement of accommodations suits him, in the matter of sufficient, space, headroom, general layout and so on.

Equipment is a matter well worth looking into. Certain equipment is required by law such as lights, life preservers, fire extinguishers, whistle, fog horn, bell, etc., and if these items are not included in the purchase price, this additional expense will be incurred for the boat can be put into operation. Then, too, there is a great deal of other equipment which, if not indispensable, is highly desirable. Anchors, lines, tools, compass, boat hook and lead line are things which it is always well to carry and ordinarily these things will go with the boat. Examine the condition of all parts of the steering gear.

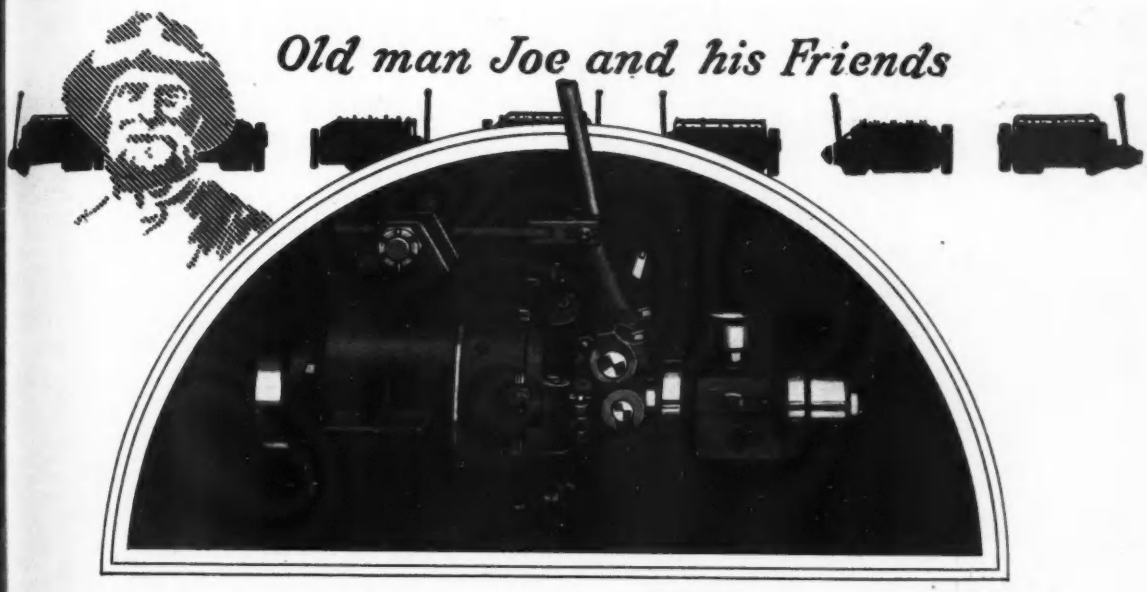
The inspection of the motor is a very important feature and here again the assistance of a friend will expert knowledge would be invaluable, especially if the boat is hauled out and the motor cannot be run for a demonstration. There are, however, a few points which anyone can look into. In the first place, the make and style of engine will determine whether it is of reliable manufacture and whether or not it is an orphan, the maker of which has gone out of business. In the latter case, replacement parts for overhauling would be hard to get and might have to be made to special order in a foundry or machine shop. Old style engines such as those of the rapidly disappearing two-cycle type, should be heavily discounted.

Attention should be paid to the proportion of motor to boat. Light, high speed engines are not well adapted to use in slow heavily built hulls unless equipped with reduction gear. In the same way, slow turning heavy duty engines give poor satisfaction in rulls of light construction, sapable of high rates of speed. Cases of over-powering are rare, but not infrequently we see large hulls with insufficient power to drive them at a reasonable rate of speed. This should be guarded against as it is always well to have a reserve of power so that under normal cruising conditions the engine need not be driven at maximum speed.

When the boat is in the water so that the engine may be tried out, its operation should be noted both idling and under load. In both cases it should run smoothly without missing and without undue noise at any speed. It should respond quickly to the touch of the throttle and should be able to carry the load of the wheel without stalling when the clutch is engaged at slow speed. Watch carefully for any tendency to overheat, indicating a clogging of water jackets or failure of the water pump.

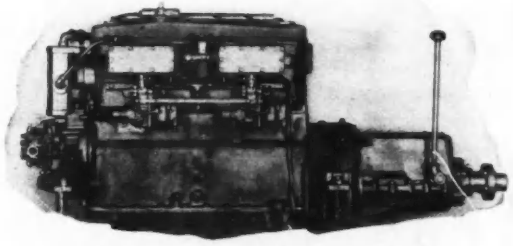
While the boat is under way, there is an opportunity to note the way it handles and how it behaves in a sea, whether it will hold a straight course, answers the helm quickly, rolls badly, or pitches into waves, instead of riding them easily. Response to the clutch should be quick and smooth both ahead and in reverse with no slipping and not too much growling of the gears in reverse. Look at the propeller shaft to see if it is sprung out of true.

(*Continued on page* 186)



~~44~~ 46 Engine Builders Standardize on Joes Gears

On the BUFFALO



"We have decided to adopt Joes Gears as standard"

says WM. EDGAR JOHN,
Chief Engineer, Buffalo Gasolene Motor Co.

After the severest tests in laboratory, river and lake, Buffalo adopted Joes Gears as standard equipment on all their marine engines. They say: "We have shipped a large number of BUFFALO marine engines this past year equipped with Joes and to date have not had a single complaint. We feel that your gear has helped substantially in the successful performance of our engines."

If you would like Bulletin 27A describing Joes Gears, also a 1929 vest-pocket calendar and "Rules of the Road," write the Snow & Petrelli Mfg. Co., 19 Fox St., New Haven, Conn.

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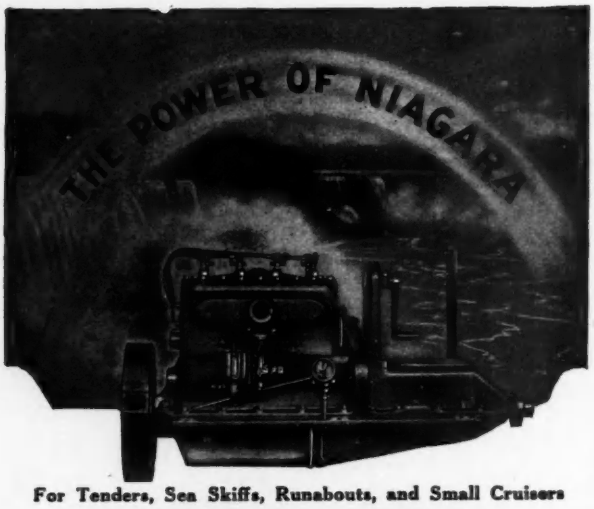
REVERSE 80%~88% of Motor Speed

Joes 200 Series Has the Double Clutch—Protected by Patents



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4 Cyl. 12-15 H.P

Is Most Emphatically the Ideal Power Plant

It is a complete power unit; more power; compact; free from freak features; simple, sturdy, economical in first cost; inexpensive to operate, long lived; thoroughly standardized as to parts: Bosch magneto; Joes reverse gear; Atwater Kent; Zenith or Schebler carbuetor. And it is the lowest priced, complete 4-cylinder motor of its size in America. An engine that will give you 1½ to 2 m.p.h. more speed, with less cost, less weight and longer life.

Put the Power of Niagara in Your Boat

Other models 5 H.P. to 120 H.P.

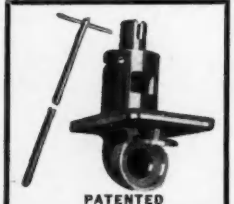
Write for details (state size of boat and H.P. interested in.)

NIAGARA MOTORS CORP.

Box 300, Dunkirk, N. Y., U. S. A.

St. Clair Self-Bailer

Will Rid Your Boat of Water



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Positive—Noiseless—Automatic

Uses No Power

For Inboard and Outboard Boats

Before putting your boat overboard install a St. Clair Self-Bailer. It will keep your boat free of water. It works automatically and silently. Nothing to get out of order. Thousands are in use. Sizes for all kinds of boats. Special type for hydro planes. Write for descriptive literature.

Sold by Dealers and Boat Builders everywhere.

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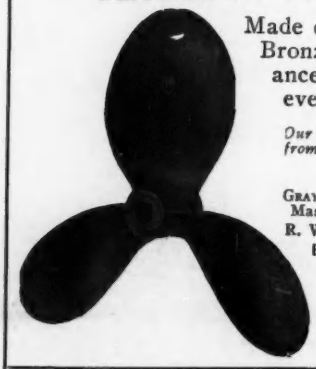


Made of best Manganese Bronze, carefully balanced, highly polished, every one guaranteed.

Our propellers can be purchased from the following dealers:

GRAY-ALDRICH CO., Boston, Mass.

R. W. ZUNDEL CO., New York.

PAULS BOAT SUPPLY, Miami, Fla.

Or send direct to

O. P. PETERSON CO.

60-66 UNION STREET

PORTLAND, MAINE

What the Novice Should Know

(*Continued from page* 184)

Now examine the motor more closely. Lift or pry up the flywheel propeller and shaft coupling to see if there is any looseness in the main bearings. Rocking the flywheel back and forth will generally reveal any looseness in wrist pins and if the engine is run these defects will generally be noticeable by an audible knock. Try turning the flywheel over slowly against the compression of each cylinder in turn to determine its compression, and whether or not it is blowing past the rings as a hissing sound would indicate. Heavy deposits of carbon in the cylinders would make their presence known by a metallic knocking, but a better idea of this could be had if the cylinder head were removed. The condition of the cylinder walls could then be ascertained at the same time as scores in the walls would be revealed. Finally, look at the engine bed to see that it is sound and securely fastened to the hull.

We have covered now in a general way some of the more important factors in the selection of a boat, which may be of assistance if the purchaser must rely on his own judgment. But let us repeat here once more that there is everything to be gained if he will avail himself of the assistance of some friend with boat or engine experience, who is likely to catch points that might be overlooked. In the next article we will cover a few important points such as government regulations and requirements with which all boatmen should be familiar.

(*To be continued*)

INCREASE IN BOAT SALES

Remarkable as motor boat sales were last year in comparison with previous years, they are pointed to still higher levels during 1929 according to reports received from leading builders. Judging from present manufacturing schedules and distributor and dealer commitments, it would not be surprising if total volume for the current year would exceed that of last year by at least 50%.

One manufacturer, Chris Smith and Sons Boat Company, Algonac, Michigan, manufacturers of the well known Chris-Craft fleet of all-mahogany motor boats, is planning on an output approximately 100% greater than last year's. According to J. E. Clifford, General Sales Manager, all department including a mammoth new cruiser division are operating at full capacity.

Despite the efforts that are being made, however, there is little or no likelihood of building up any large reserves against the time when retail boat deliveries will reach the peak. Although five boats a week are now being completed and between 300 and 400 employees are working, completed boats are being shipped to distributors and dealers almost as rapidly as they are finished. Distributors and dealers are being requested continually to anticipate their needs in order that their retail customers may be insured deliveries when wanted.

GOOD GROUND TACKLE CHEAP INSURANCE

There is a lot of good sound advice for yachtsmen in a short article contained in a recent issue of Plymouth Products, a little publication put out by the Plymouth Cordage Company of North Plymouth, Mass.

Emphasis is laid on the fact that for any craft, whether fisherman or yachtsman inshore or offshore, there is always the possibility of being dismasted or having the engine fail at some critical time on a lee shore, and the only salvation in such a case is to have plenty of reliable ground tackle.

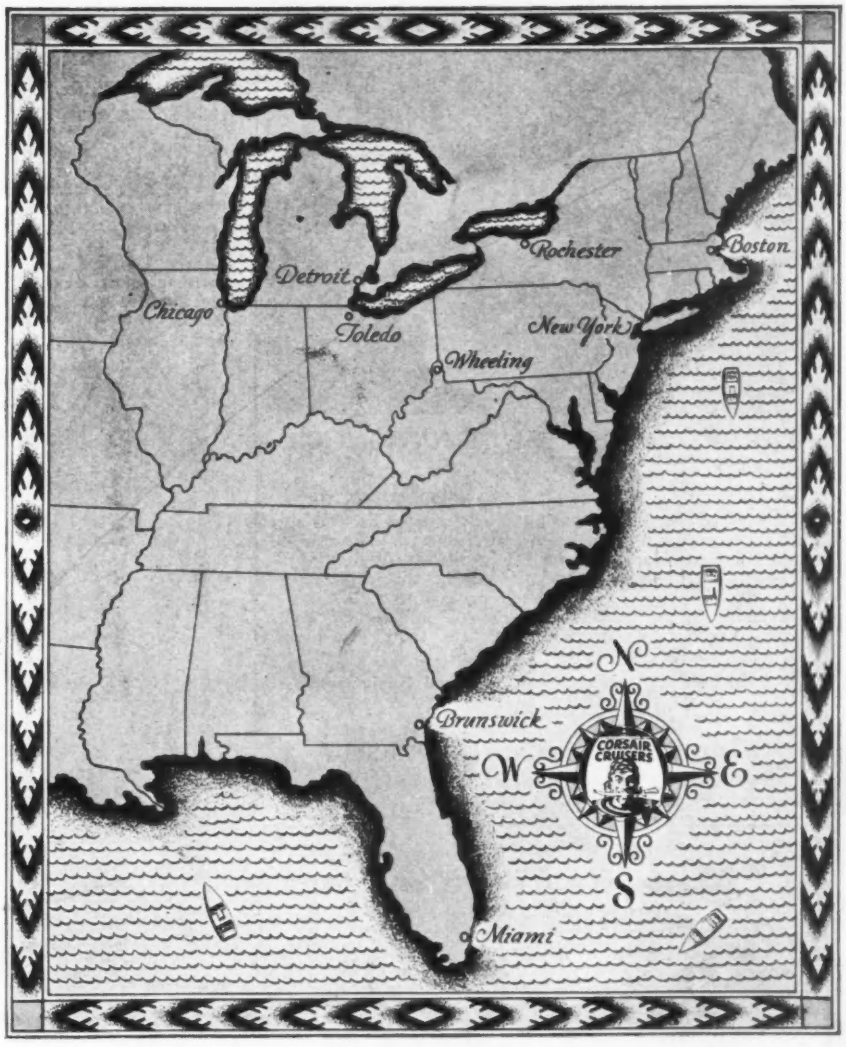
In order to help yachtsmen select the proper rope for their boats, the Plymouth Company has prepared a little booklet, which may be had without charge, simply by writing them at the above address.

THREE BOOKS FOR THE YACHTSMAN

E. P. Dutton and Company are the publishers of three interesting new books which should find a place in every yachtsman's library. The Complete Yachtsman, by B. Heckstall-Smith and Captain E. DuBoulay, is a volume which includes everything that the yachtsman should know in regard to the designing, building, care, operation and use of a boat, with particular reference to the sailboat.

Small Boat Sailing written by E. F. Knight, author of the Cruiser of the Falcon and many other well known books, is a very comprehensive little manual covering all phases of the art of handling small sailing craft. Round the Horn Before the Mast is a story of Adventure by A. Basil Lublock and recounts the experiences of an ordinary seaman on a voyage from San Francisco to Liverpool around Cape Horn on a windjammer.

Advertising index will be found on 3rd last page



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NEW YORK CITY and LONG ISLAND
Garlock and Brewster Marine Sales Co.
11 West 42nd St. and Bay Shore, L. I.

DETROIT, MICHIGAN
Detroit Boat Co., Inc.
East Jefferson Ave.

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CORSAIR CRUISERS

THE widespread popularity of Corsair Cruisers and Cruisaders has attracted a dealer organization distinguished for the caliber of the men who compose it as well as for the quality of the service they render to owners and to prospective owners of a Corsair. If you will communicate with the dealer nearest you, he will gladly arrange any demonstration that may suit your convenience. If there is none in your immediate vicinity, write the main office in Detroit for illustrated Catalog No. MB5.

CORSAIR BOAT COMPANY

1030 BUHL BUILDING, DETROIT

Successors to CHENEVERT & COMPANY *and* DAVIS BOAT COMPANY

Desirable locations are still available to dealers. Address Detroit for full particulars.

THE WEEMS SYSTEM OF NAVIGATION TELLS THE STORY . . . .

THE Weems system of navigation, easy to learn and extremely practical for experienced as well as inexperienced sportsmen and seamen, is now available in a fascinating Home Study course. Written by Lieut. Commander Weems; offered exclusively through Pacific Technical University; dedicated to Col. Chas. A. Lindbergh, this system is endorsed by Commander Byrd, Lincoln Ellsworth, Admiral Moffet, Admiral McLean and other prominent authorities.

Adapted to Marine as well as Aerial Navigation

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REGAL

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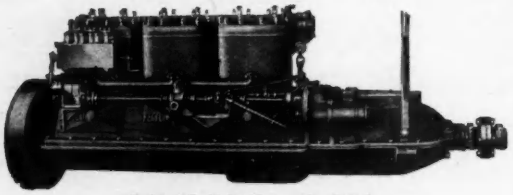

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Stamina That Never Dies

Regal engines are not only built to microscopic precision, resulting in high operating efficiency, but their rugged strength and oversize parts insure a power plant of lasting usefulness

EIGHTEEN MODELS
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Also Manufacturers of REGALINE Electric Lighting Plants

REGAL GASOLINE ENGINE CO.
ESTABLISHED 1901
74-82 W. Pearl St. Coldwater, Mich.

MODERN RUNABOUT HAS WORLD-WIDE MARKET

Evidence is frequently found to contradict the more or less popularly accepted idea that the motor boat industry is still in the infant stage as compared with the well established automobile industry.

One specific example of this is demonstrated by the figures for the export trade which show that whereas only 11 per cent of the automobiles manufactured in this country are marketed aboard, 13 per cent of the product of Chris Smith and Sons Boat Company goes to foreign countries. These figures indicate conclusively that the entire world is turning to motorboating as a source of pleasure and a means of transportation.

Chris Craft dealers are found in twenty foreign countries covering every portion of the globe, service being available at each of these points. Scandinavia, Australia, the Philippine Islands and South America are but a few of the countries to which these fine craft are being regularly shipped.

Walter Bendix, purchasing agent for the Dawn Beat Co. Mr. Bendix was for many years with Chas. Durkee & Co. of W. & J. Tiebout

One of the most noteworthy shipments was recently made from New York City. It was a Chris Craft 26-foot sedan, purchased by the Ford Motor Company for use in developing their immense rubber holdings along the banks of the Amazon and Tapajos Rivers, in Brazil. Practically all of this region is a trackless and savage jungle, with no highways of consequence and it is extremely significant that the Ford Company should select the Chris Craft as the most dependable and efficient means of transportation available for their requirements.

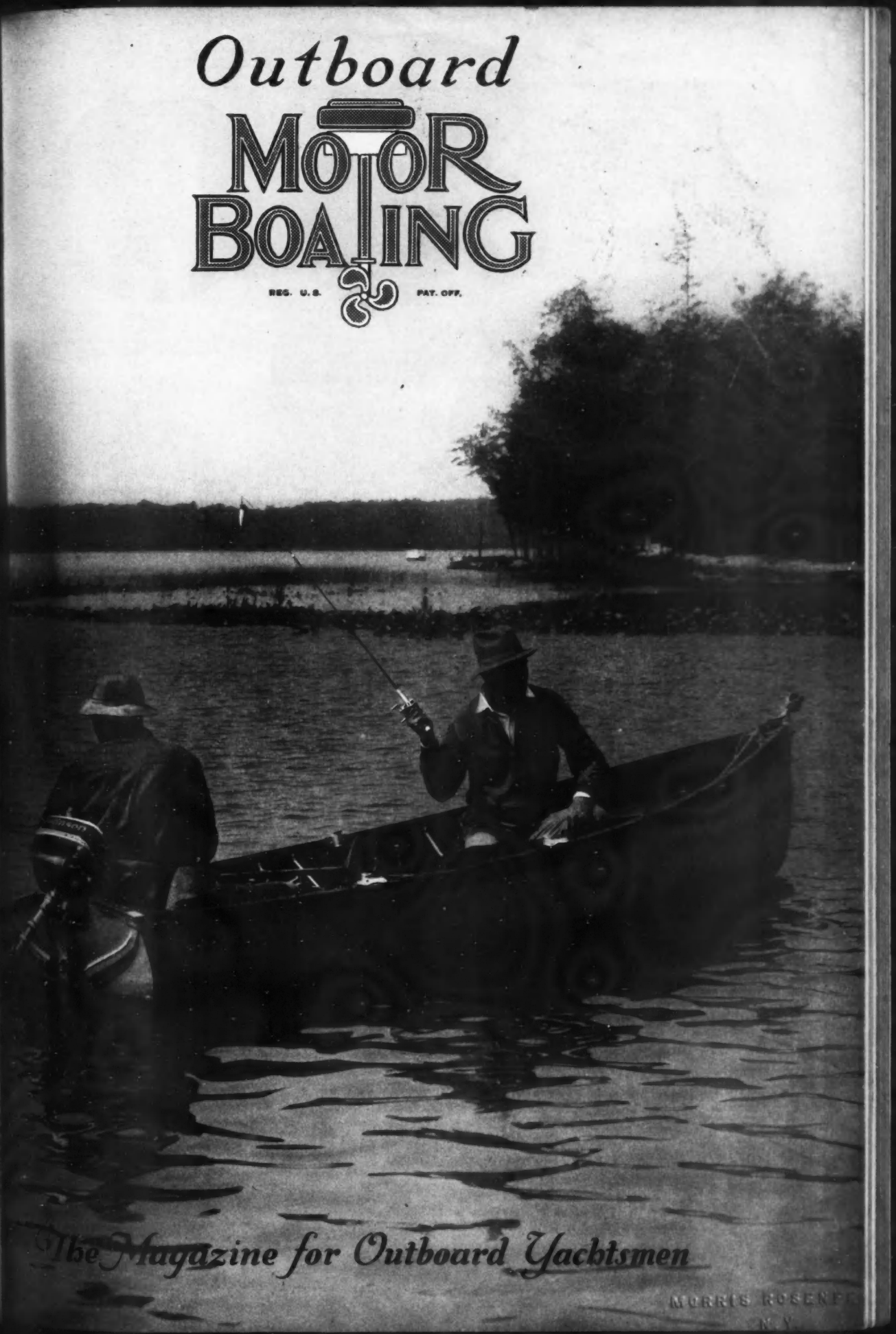
Of equal importance to the part Chris Craft plays in commercial enterprises such as the above is its function in providing thoroughly reliable pleasure craft for all classes of users. No longer is it necessary to have expert mechanical or boating skill in order to indulge in the fascinating sport of driving a motor boat. Safety of handling and simplicity of control have been developed to a point where any woman or even the ten-year-old boy or girl can pilot one of these with full assurance of safety. In fact, the handling of such a boat is even less complicated than the operation of an automobile under present-day conditions which involved traffic problems. Only recently at the Miami Regatta 14-year-old George Strom, Jr. of Wheaton, Illinois won the Gondolier Trophy for stock runabouts over 160 h. p. with a Chris Craft.

One of the 30-foot, all mahogany commuters was shipped short time ago to Captain J. A. Holder of Keeping, Bentley, Hants, England. Captain Holder, who is prominent in British military and sporting circles, is very enthusiastic about the performance of his new craft, which he has named Simone. She is powered with one of the famous 8-cylinder vee type Chris Craft motors, perfected by Jay Smith. Captain Holder states that the motor is quiet, smooth running, and reliable and that the boat is excellent in a sea, handling perfectly under all conditions.

Advertising index will be found on 3rd last page

Outboard MOTOR BOATING

REG. U. S. PAT. OFF.



The Magazine for Outboard Yachtsmen

John W. Griffin, popular New York dealer and sponsor of the Albany-New York race

J. Dunnell, winner of the $500 prize with the smile that won't come off. He averaged almost 37 miles for 132 miles

M. Rosenfeld

B. Flower, driver of the Evinrude equipped Whim, winner of Class C

Julius Herbst, the racing boat builder, won second place in. Class D with one of his boats and a Johnson quad

R. Pregenzer, driver of Oh My, first in Class E. Elto quad engine, Century boat

A. Eckert, Jr., winner of B class with a Johnson Sea Horse 16, Meramec boat

M. Rosenfeld

Miss Eastern, the Johnson powered Ludington hydro driven by J. Dunnell, first from Albany to New York in 3:36:40

130 START IN ALBANY RACE.

Greatest Contest of All Time Brings Out Record Entry List and More Competitors Than Any Previous Event for Outboard Boats

By F. W. HORENBURGER

AFTER a trying week of the most gosh-awful weather ever experienced in and around New York, the weather man relented and did his daily kind deed on April 20th by supplying a good day for the Albany-New York Outboard Race. This event, promoted by John W. Griffin, of New York, was run for the second time. Some 175 drivers of outboard boats filed entries prior to the race; about 130 qualified in all particulars and actually started. The course lay on the Hudson River between the Albany Yacht Club and the Colonial Yacht Club, New York, a distance of 132¼ statute miles.

It required the better part of the entire day previous to the race for the committee to attend to all the paper work incidental to tabulating all particulars of contestants. Then it was necessary to labor far into the night to prepare the necessary drivers' cards which were issued to drivers for delivery at the New York end of the course. Four a. m. was the time at which the cards were to be distributed and it was an hour and a half later when the last was called for. Over 135 were issued and it is this count which establishes the number of starters. No committee in the world could have counted or checked the oncoming mass of boats and drivers which charged across the line with the starting gun at 6 A.M. A few casualties resulted prior to the start, mainly due to the boats themselves. Drivers ready to start kept their boats and engines going by merrily sailing about on the river in every direction. This caused such a commotion that the river actually was whipped into a very rough state despite the absence of wind. Waves coming from every direction made it extremely difficult to handle a boat and possibly four or five turned over at this time. Once the race was under way the boats rapidly strung out and with ideal conditions little further trouble was experienced.

The river was at a high flood stage, due to the

Spirit of Atlanta, Julius Herbst's fast Johnson powered boat, second to finish

A busy scene at the Albany Yacht Club one hour before the start at 6 A. M.

heavy rains earlier in the week and there was much driftwood and debris drifting along at a good two-knot rate. This accounted for many casualties, as propellers seem to have a knack of picking up any stray chips which come near them.

After the official start at six, many who were unable to get their engines started earlier got under way and finally all were off on the course. Albany was once again peaceful and quiet after several days of incessant outboard uproar. The committee hastened to the railroad station and boarded the fastest train available, which makes the run to New York in three hours. An entire car full of interested followers soon began to pick out boats in the river as the train passed along its banks. At the half way point, the greater part of the fleet had been left behind. A few faster boats were sighted and as the train passed Haverstraw Bay the leaders were overtaken. On their arrival in New York, six or seven taxi loads of officials were escorted to the Colonial Yacht Club by some of Commissioner Whalen's motorcycle police without delay. In spite of the speed of the train three boats had already finished the trip when the timers arrived at 9.50 and from then on the arrivals were fast and frequent.

Jack Dunnell, driving Miss Eastern, a Ludington hydro powered with a Johnson Class D engine, was the first to arrive, having made the trip in 3:36:40, or at the rate of 36.63 m. p. h. for the entire run. He was followed closely by Julius Herbst, driving his Spirit of Atlanta, also with a Johnson Class D engine, in an elapsed time of 3:46:35. Third to finish and only 8 seconds behind Herbst was R. Pregenzer, driving Oh My, his Century boat with an Elto Quad. His was the first Class E boat to finish and was awarded the Class E first place prize. The fourth boat in was Whim, driven and built by B. Flower and powered with an Evinrude Class C engine, in 3:54:55, equivalent to 33.90 miles per hour, which is very fast for a Class C engine for such a distance.

The first Class B boat to finish was Miss Berkshire, driven by A. Eckert, Jr., of Albany, with a Johnson

Oh My IV, R. Pregenzer's Elto powered Century boat, the third to finish

DUPLEX Scores Again!

Two Out of the First Three

to Finish

Albany to New York Race

Used Duplex Marine Engine Oil

Outboard Special

THE splendid showing of Duplex Outboard Special in opening the 1929 outboard racing season again calls attention to the fact that Duplex is the accepted standard of the outboard world —that practically every world's record both for long and short distance is held by Duplex.

ENTERPRISE OIL COMPANY, Inc.
Established 1884
BUFFALO, NEW YORK

Wholesale District Distributors in New York, Boston, Philadelphia, Cleveland, Detroit, Chicago, St. Louis, Vancouver, San Francisco, Wilmington (Calif.), Houston, Miami and Palm Beach. Dealers wherever boats float.

Miss Berkshire, A. Eckert's Johnson powered, St. Louis-Meramec craft, the first Class B boat to finish

powered St. Louis-Meramec boat in 4:37:08.

Up to three o'clock, or nine hours elapsed time, 54 boats succeeded in completing the contest. When the severity of the course and distance are considered, the fact that almost half of the boats finished is a remarkable example of the stamina and reliability of the present day outboard. Many of those which failed did not do so through fault of equipment. There are hazards of navigation, shoals, and floating drift to contend with which are hard to guard against, particularly in such small craft moving at 30 to 35 m.p.h. Other troubles were of a minor nature, such as fouled plugs, breaks in fuel lines, and generally similar faults. The time required to repair such difficulties caused such delays to drivers who were already over exhausted by the several strenuous days prior to the race, that they were easily discouraged and ready to give up. It was only those who were so fortunate as to come through without mishaps who were able to secure winning places and the prizes. The grand prize of $500, presented by Haynes-Griffin, Inc., went to J. Dunnell, while a similar prize of $500 for the first Bossert boat to finish went to W. E. Crawford. Other trophies and prizes of generous proportions were also distributed in all classes so that many of the drivers succeeded in getting some form of award. Bruno Beckhard, of Flushing, gave handsome gold pins to each of the contestants who succeeded in passing Poughkeepsie, the half way point.

A summary of results follows:

CLASS B

Boat	Driver	Elapsed Time	Motor	Boat Builder	Position in race
Miss Berkshire	A. Eckert, Jr.	4:37:08	Johnson	St. Louis-Meramec	16
Carl's Spencer Special	Carl Mason	4:53:00	Lockwood	Spencer	21
Rubber Baby	J. E. Wilkinson	4:54:22	Lockwood	Herbst	24
Miss Russell II	A. Pringle	5:55:50	Johnson	Russell	43
Boyd-Martin	C. J. Conn	6:03:00	Lockwood	Boyd-Martin	45
Snappin-Cracker	P. James	6:31:40	Lockwood	Boyce-Rutledge	47
B-48	H. Fawcett	6:59:45	Lockwood	Lyman	49
H. S. Jr.	M. B. Osborn	8:14:20	Lockwood	Howell	53

CLASS C

Boat	Driver	Elapsed Time	Motor	Boat Builder	Position in race
Whim	B. Flower	3:54:55	Evinrude	Flower	4
Miss Shirt	F. H. Patterson	3:58:30	Evinrude	Thompson	5
Penn Yan	L. E. Preston	4:14:00	Evinrude	Penn Yan	9
Bozo II	A. H. Gebrath	4:15:07	Evinrude	Sea Sled	10
Big Ben	H. Chapman	4:18:40	Evinrude	Hallock	12
Baby Whale	F. Meyers	4:22:41	Evinrude	Kelley	13
Baby Whale	H. C. White	4:24:39	Evinrude	Kelley	14
Baby Whale	J. Pilzer	4:37:40	Caille	Kelley	17
Miss Glencove	J. H. Gregory	4:38:38	Evinrude	Bair & Edgerton	18
Non-Capsizable	C. M. Bouvier	4:47:17	Evinrude	Non-Capsizable	19
Caw	M. Hagenlocher	4:47:25	Evinrude	C. A. Warren	20
Cole Hod	S. M. Cole	4:54:06	Evinrude	Owner	22
Brewster Baby Olds	A. V. Rogers	4:54:14	Evinrude	Brewster	23
Baby Pirate	W. E. Crawford	5:01:02	Evinrude	Bossert	25
Miss New Rochelle	R. F. Safford, Jr.	5:04:50	Caille	Lane Special	27
Miss Minneford	P. G. Thebaud	5:05:42	Caille	Hauptner	28
Miss Westover	Capt. Snedicki	5:08:04	Caille	Pigeon	29
Brewster Baby Olds	D. W. Brewster	5:13:35	Evinrude	Brewster	30

FINISHED AFTER 3 P. M.

Good Will Tender, Jack C. Rockefeller; Silver Streak, T. F. Maloney; I'm Alone, Jos. C. Smith; Cutecraft Herself, A. Buffinton.

ALSO RAN

Class A

Chip, Mrs. E. R. Wood

Class B

Flying Fish, Ted Roberts; Skiddo, Fred Zimms; Kennebec, H. H. Jackson; Century Cyclone, W. R. Frederick; Lockpalm, P. Raymond; N-259, L. L. Winchester; Portland Rubber Baby, J. H. Gulick; Miss Julia III, F. Jacoby; Wee Minneford, E. Hauptner; G. H. Droste, G. H. Droste; Century Cyclone, E. O. Herin; 0259, L. L. Winchester; Chip III. Geo. Waller

Class C

Miss Crystal Lake, B. Mantha; Miss Circuit Rider, Helen Henschel; Flying Fish, B. Hoyt; Flying Fish, Kirk Ames; Yank, R. L. Brazeau; Boyd Martin, Frank Carpenter; Porteus, Leo Ginsburg; Bossert Kid, Frank Schineller; Bac, M. Weeks; Shalk, A. Flower; N-148, R. C. Ketrick; Baybo Baby, W. H. Smith; Baby Whale, W. Broistett; Split Seconds, J. N. Prosser; N-149, L. Landau; 0809, G. De Angelis; If, H. Payne; Flower's Falcon, D. Flower; Ace, N. Lederman; N-188, W. Engle; Penn-Yan, J. L. Bremen; Baby Steel Craft, Ruth E. Hanson; Penn Yan, L. E. Preston; Cute Craft Meteor, J. H. Ladew, Jr.; Century Cyclone, W. R. Frederick; My Pup, C. Mald; Lot-o-Fun, R. Fellma; B-52, E. L. Andrews; I'm Alone Too, J. W. Jennings; N-264, F. S. Collier; N-213, Ed Zust; Ree, E. Derfert; Miss Mamaroneck, Geo. Wood

Class D

Spirit of Peoria 3, E. Travis; And How, B. Seeley; Miss New England, H. R. Maddocks; Flying Fish 3, V. Withstandley; Airships, Robt. Herrnstadt; Airships, F. N. McCoy; Airships, P. Youngberg; Airships, A. Keller; J-26, C.

(*Continued on page* 238)

CLASS C

Boat	Driver	Elapsed Time	Motor	Boat Builder	Position in race
Three Star	R. Griffin	5:17:35	Evinrude	Pigeon	32
Fairchild	P. Troch	5:20:16	Evinrude	Fairchild	33
Lighting	M. Feldus	5:31:53	Caille	Boyd-Martin	35
Fairchild	S. Karasz	5:31:55	Evinrude	Fairchild	36
Sonny Boy	G. J. Heldt	5:32:40	Johnson	Gesswein	37
Crouch	H. Bedford	5:35:52	Caille	Crouch	38
C-Horse	R. Laubly	5:38:20	Evinrude	Cute Craft	39
Air Speed	L. Holzapfel	5:40:52	Evinrude	Home made	41
Herm	Frank Gumbus	6:09:45	Evinrude	Johnson-Pease	46
Skiboat	D. McVickar	7:01:20	Caille	Skiboat	50
N-182	R. P. Breeze	7:06:02	Caille	Skiboat	51
Bridgeport	J. H. Wade	7:07:10	Johnson	Boyd-Martin	52
Rascal	B. Klein	8:30:05	Evinrude	Porteus	54

CLASS D

Boat	Driver	Elapsed Time	Motor	Boat Builder	Position in race
Miss Eastern	J. Dunnell	3:36:40	Johnson	Ludington	1
Spirit of Atlanta	J. Herbst	3:48:35	Johnson	Herbst	2
Short Circuit	R. Warner	3:58:31	Johnson	Cute Craft	6
Baby Tag	T. Gravelne	4:01:40	Johnson	Cute Craft	7
Airships	R. Oakley	4:01:40	Johnson	Airships	8
Speed Baby	F. M. Hershenrider	5:16:10	Elto	Keystone	31
Miss Norwalk	J. Wakeman	5:25:30	Johnson	Sea Sled	34
N-155	H. Herrnstadt	5:38:30	Johnson	Airships	40
J-27	C. N. Jones	5:44:08	Johnson	Non-Capsizable	42
N-223	W. J. Martin	6:39:00	Elto	Thompson	48

CLASS E

Boat	Driver	Elapsed Time	Motor	Boat Builder	Position in race
Oh My IV	R. Pregenzer, Jr.	3:46:43	Elto	Century	3
Nemo	J. Brockley	4:18:16	Elto	Herbst	11
Century Cyclone	J. Masterson	4:36:00	Elto	Century	15
Coca Cola	R. P. Kennedy	5:04:10	Elto	Hooton	26
Baby Mermaid	L. Kasten	6:02:00	Elto	Thompson	44

Built for a Two-Reef Breeze

Albany-New York Race

won by

LUDINGTON "HYDRO"

[Driven by Dunnell]

136 Miles in 3 Hours, 36 Minutes

Average Speed 37.4 miles per hour

Get behind the wheel of a winner—open the throttle and leave the rest behind. When it comes to winning races the Ludington Boats consistently come in first.

At Albany, and in Florida, where the Ludington Lightning recently broke the existing world's record by spurting over the finish line first at the tune of 42.65 miles per hour—wherever races are run—Ludington Boats are in a class by themselves.

Of aircraft construction—light but sturdy—in smooth water or rough—Ludington Boats stand the terrific pounding of continual use at high speed—and come up smiling. Mail the coupon today.

Orders Filled Strictly in Order of Application—Don't Delay

LUDINGTON

LUDINGTON AIRCRAFT, INC.

808 ATLANTIC BUILDING . . . PHILADELPHIA, PA.

Dealers
Some territory still open. Write at once.

Boat Lovers
Send for literature and prices.

LUDINGTON AIRCRAFT, INC.
808 Atlantic Building
Philadelphia, Penna.

Please send me literature and prices of your boats.

Name.....

Address.....

HERBST'S

Spirit of Atlanta
Second to Finish

THE

ALBANY - NEW YORK
136 MILE
MARATHON

Bettering
Last Year's Record
by
40 Minutes—55 Seconds

HERBST'S BOATS

Also won

3rd Place Class B

and

2nd Place Class E

HERBST BOATS WIN

HERBST BOAT WORKS, Inc.
WILMINGTON NORTH CAROLINA
Designers and Builders
Outboard Racing Hulls **Outboard Runabouts**
Outboard Cruisers

RECORD HARD TO BEAT!

PHILIPPINE
INDOAKO
WOOD

(Formerly called "Philippine Mahogany")

Used for planking

Miss Eastern
Winner of Albany to New York Race

Spirit of Atlanta
Second Boat to Finish

IN fact, out of the first eight boats to finish the race, SEVEN were planked with Philippine INDOAKO Wood, *proving once again its durability, light weight, and ability to hold the fastenings under tremendous strain.*

INDIANA QUARTERED OAK CO.
222 East Avenue Long Island City

EXPRESS DIESEL YACHT

A contract has been recently placed by Tams & King Inc., well known designers, with the Consolidated Shipbuilding Corporation of Morris Heights, New York City, for the construction of a 154-foot steel express diesel yacht.

The new yacht will be unusual as to appearance, having all the qualities of the ordinary steamship type diesel yacht as to seaworthiness, accommodations, cruising radius, etc., but has been designed on entirely new lines. An unusual treatment of the forward part of the boat, carrying out a stream line effect throughout with an unusually long after deck features this design.

Two Winton 600 h. p. Diesel motors will drive the yacht at a cruising speed of 16 miles per hour with a maximum speed of 19 miles. The entire engine room equipment will be supplied by the Winton Engine Company.

Accommodations consist of four double staterooms, two single staterooms and four baths. On deck there will be a large living room, smoking rooms or library and a very commodious dining room with adjoining pantry. The owner will use her for cruising the Atlantic Coast, spending the winter on board in Florida waters with cruises to the West Indies and Bahamas. The dimensions of the yacht will be 154′ 6″ o.a., 153′ 3″ WL, 24′ beam, 8′ draft. She is being built for a prominent member of the New York Yacht Club, and will be in commission by January 1, 1930.

IMPROVEMENTS IN STATE CANALS

Announcement is made of the 1929 opening of New York State Canals by Commissioner Farrell of the Division of Canals and Waterways. The Erie, Oswego, Cayuga and Seneca canals were opened April 5 and the Champlain Canal April 15.

During the winter months extensive repairs were made to the lock operating equipment and structures. The approach walls at Lock number 11, Amsterdam, have been lengthened and similar improvements are planned for Lock 12, Tribes Hill and Lock 16, Mindenville. A fender system has been arranged for the piers of guard gates to prevent damaging of boats.

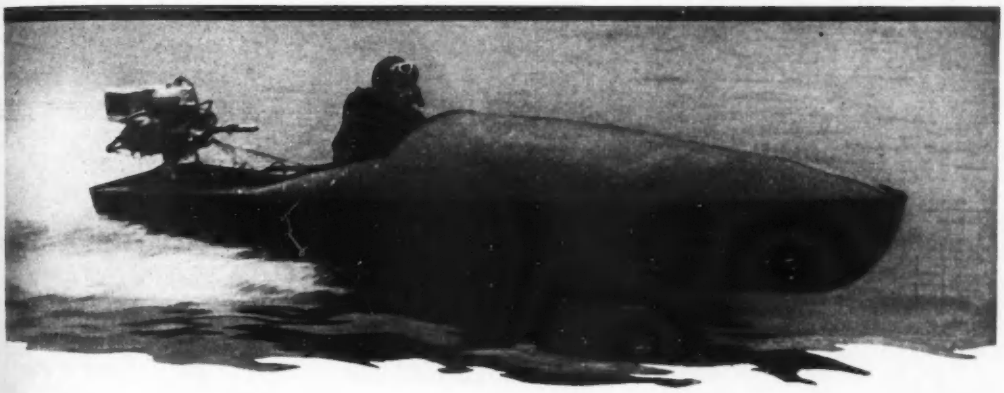
With the addition of new dredging equipment to the state department's floating plant, there will now be available facilities to provide for the maintenance dredging of canal channels by department forces.

Advertising index will be found on 3rd last page

Johnson SEA-HORSES Win

1st, 2nd, 6th, 7th and 8th Places

In Albany to New York Marathon



Slash 50 Minutes from Previous Mark

First in Class B

MISS EASTERN, powered by a Johnson Sea-Horse 32, driven by J. Dunnell won the famous Albany to New York Marathon April 20th and shattered all previous outboard marathon time records. His average speed was 37.4 miles an hour. He clipped 50 minutes and 50 seconds from the former mark for this run.

Second, sixth, seventh and eighth places also fell to Johnson, all being won with Sea-Horse 32 Class D motors, while the first B Class motor to cross the line was a Johnson Sea-Horse 16, driven by A. Eckert, Jr., who averaged 28.58 M.P.H.

Following upon the heels of the Johnson victories at Miami Beach in March where the Sea-Horses won the Col. E. H. R. Green Trophy event with first and second places and where the Sea-Horse 32 set a new American time trial record in Class D of 43.76 M.P.H., the Albany to New York victory definitely establishes the sweeping claims made for these brilliant motors.

Write for catalog. Sold on free trial and easy payment loan.

JOHNSON MOTOR COMPANY
3081 Pershing Road Waukegan, Ill.

IN CANADA: Canadian Johnson Motor Company, Ltd., Peterborough, Ont.
Distributors for British Columbia: Hoffars, Ltd., Vancouver, B. C.

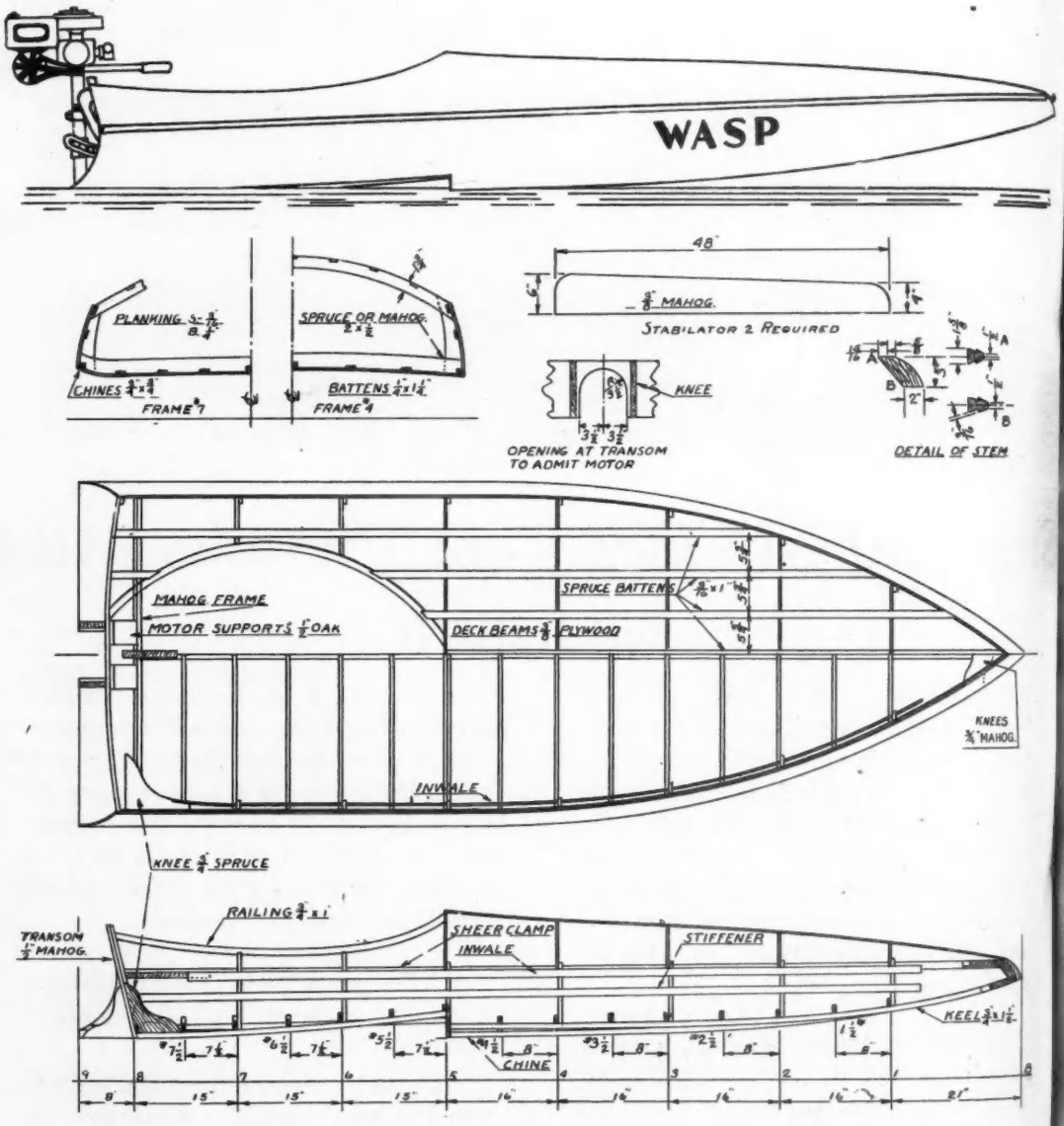
Johnson
Outboard Motors

WORLD'S LARGEST MANUFACTURER OF OUTBOARD MOTORS

WASP—A FAST LITTLE HYDRO

Design and Details for Building an Excellent Little Boat

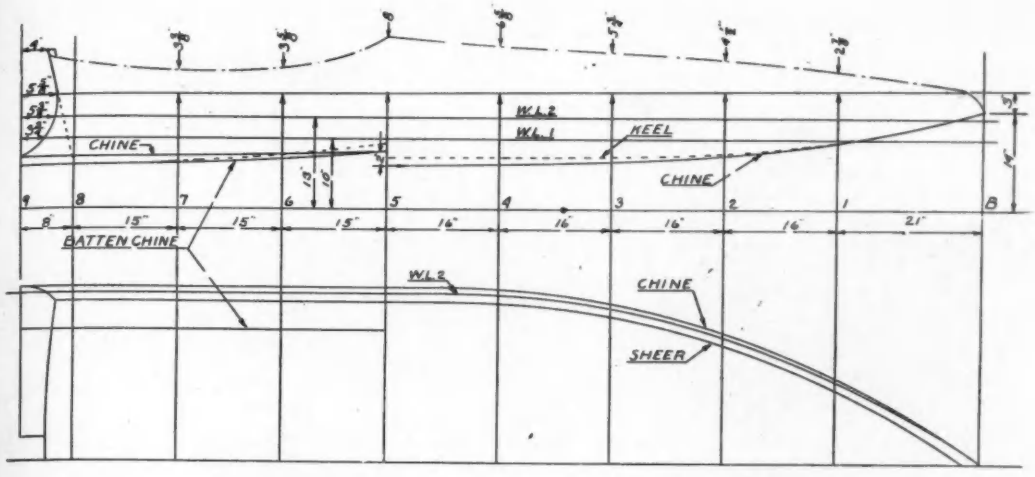
for Class B and C Outboard Engines



The profile for the little hydroplane Wasp and the construction drawings for this boat reproduced to a scale of ½ inch to the foot

THE little design presented here will fully meet the requirements of speed fans this year and is suited to engines of Class B and C. Before we go further let us ascertain what we have to contend with using the new motors. Last year those who had pepped up motors capable of high enough speeds found that their boats acted somewhat erratic. One of the ills that was very noticeable was snaking. That is when running at high speed the boat would weave back and forth violently, sometimes turning over.

Now this condition is partly attributable to the motor but mostly to the boat. By much testing and experimenting we overcame this difficulty in the design of the underbody of the boat. Sometimes this condition can be helped considerably by locating the fin correctly. Generally the fin should be about 36 inches forward of the step. For different types of boats this can be found best by experimenting.



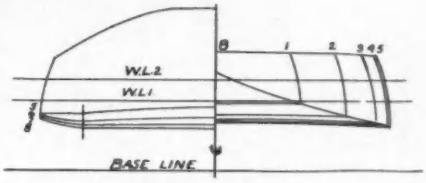
HALF BREADTHS

Station No.	1	1½	2	2½	3	3½	4	4½	5	5½	6	6½	7	7½	8	9
Sheer	10-8		17		21		22-12		23		23		23		23	
Chine	12-6	15-14	18-12	21	22-15	24	25	25	25	25	25	25	25	25	25	25
WL 1	12-2		18-10		22-12		24-8		24-12		24-12		24-12		24-12	
WL 2	11-12		15-2		22-2		24		24-2		24-2		24-2		24-2	

HEIGHTS ABOVE BASE

Keel	7-8	8-9	8	7-8	7-7	7-4	7-5	7-3	7	8-4	7-10	7	6-8	6-2	6-1	6
Chine	7-8	8-8	7-9	7	6-11	6-8	6-5	6-3	6							
M. Chine									8	8	7-12	7-8	7-8	7-4	7-3	7-2
B. Chine									8	7-8	7-1	6-12	6-3	6-2	6-1	6
Sheer	16-15		16-14		16-11		16-10		16-8		16-7		16-4		16	

OFFSETS IN INCHES & SIXTEENTHS TO INSIDE OF PLANK



The lines and table of offsets for the hydroplane Wasp reproduced to a scale of ½ inch to the foot

Another thing, although most outboard craft of the present are strongly constructed they have one fault in common. When traveling at high speeds, the bottom changes shape, resulting in lowered efficiency. We have added an extra piece on the inside of the framework shown as stiffener that overcomes this difficulty.

As to negotiating the turns at high speed this craft is as safe as is possible with a boat of this type. The rounded chine coupled with the stabilators take the turns nicely.

We have found ventilating tubes at the step unnecessary as the design of the bottom ventilates thoroughly.

Installing one of the steering wheels with controls now on the market is necessary. When traveling about 40 m.p.h. an insignificant gas throttle tucked under a flywheel turning some 4500 r.p.m. is a difficult operation. It is a delicate if somewhat dangerous operation hanging onto a handle and controlling the speed simultaneously with the steering. A slight deviation sometimes initiates one into the Hell Divers Association.

Make a good job of planking the bottom and finish with a racing bottom paint. Edward Smith carry an excellent paint for this purpose. After the bottom is finished and an extra smooth surface is wanted, apply Johnson's Prepared Floor Wax or Simonize. Rub to a polish. This will last much longer and is not as dirty as put lead. The boat should be built right side up upon a form cut to the shape of the keel. Apply the side planks first. A batten is to be notched into the side frames so each side will take two strokes of planking. It is not advisable to fasten one single wide plank on each side because the extra batten and fastening strengthen the boat considerably. After the sides are planked the boat is taken from the form and bottom planked. Before planking the bottom it is a good idea to lay strips of cloth in marine glue on battens, chines and keel so as to insure a watertight hull.

The deck beams are sawn from ⅜" Plywood. When these are in place fasten battens in as shown on plans. The deck covering should preferably be an artificial leather. Aeroplane Linen treated with dope and painted is also very good.

The cockpit railing is made up of two pieces of one inch spruce lapped together in the center. One end is screwed to deck beam No. 5 and the after end is screw fastened to the transom. The top of rigs 6 and 7 are notched out for same and screw fastened.

Specifications

Bottom Planking, Dressed Mahogany, ¼" thick
Side Planking, Dressed Mahogany, 3/16" thick.

The following can all be of dressed spruce or mahogany to specified sizes.

Transom, ½" thick.
Ribs, ½" thick.
Keel, ¾" x 1½".
Plank Battens, ¼" x 1⅛".
Deck, ¼" x 1⅛".
Sheer, ¼" x 1⅛".
Inwale and Stiffener, ⅜" x 1⅛".
Rub Strip, ¾" half round.
Chine, ¾" square.
Deck Beams, ⅜" Plywood.

M. Rosenfeld

A three deck trailer used at a Florida regatta to carry a racing fleet

HOW OUTBOARD BOATS ARE CARRIED

A Useful Accessory Which Can Be Easily Assembled Simplifies the Problem of Moving the Boat from Place to Place

By CLAUDE P. FORDYCE

MY choice of a boat for use with an outboard motor was a 14-foot, 95-pound hydroplane. I live ten miles from the nearest body of water suitable for cruising and my boat had to be easily transported and handled for week-end trips. Most of my boat-owner friends have larger and heavier boats which they leave in the river which proved to be a precarious plan as several boats and motors were stolen. So with my light boat I had entire safety from theft and I am quite independent to carry it anywhere I wish—to the Missouri River, to lakes in Missouri and Kansas and last summer I took it far north into Canada and then cruised down 500 miles of the Missouri River. The boat can be readily handled by two men off the trailer and into the water and back to the trailer for the return home. I found this boat excellent for all types of use, for racing, for one-day runs and I rigged it up for camping for a month's wilderness trip.

As some of the roads to waterways were extremely rough, I had to rebuild my trailer three times before I got an arrangement which did not injure the boat. The first mistake was in having the trailer frame rest directly on the axle without springs; the second mistake was in having the center saddle piece of the trailer frame fitted in front of the step of the boat instead of having the lowest part of the step rest on the cross piece. Also the boat was not securely clamped to the frame and the chain toggle permitted the lower edge of the boat to slide off

The trailer suggested by Mr. Fordyce is easily constructed

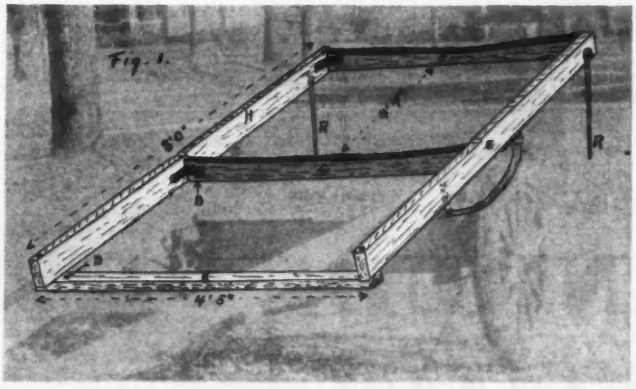
How the whole outfit of boats and engines is carried by a racing team in Florida.

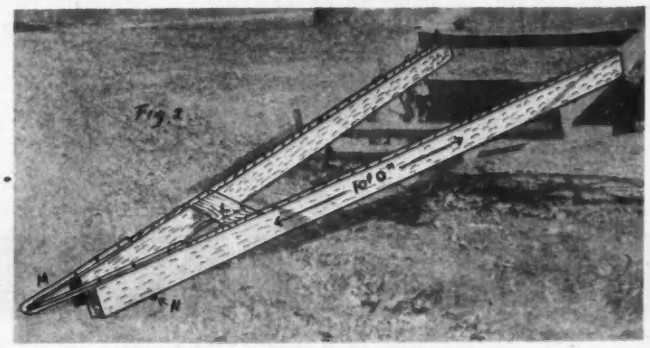
the frame. The trailer illustrated entirely fills the bill, and an account of its construction may aid others who want to build their own trailer.

The principal points to observe in trailer making are to have the trailer frame built as a one-piece unit, to have the boat clamped on this frame so it too becomes a part of this unit and immovable, to have the boat rest on points which stand pressure best (the sides, transom, keel and thickest portion of the step) to have the frame rest on springs and to have the tongue piece in the form of a V so there will be an equal angle pull on either side of the axle. We used an old Ford rear axle; (a front axle will do as well) and either can be picked up cheaply from the second hand man. New tires may have to be installed. We use Ford front springs with two leaves removed from each and these are installed on the axle on either side of the frame with regular spring hangers.

The front portion of the keel rests on a saddle of belting which is 6 inches wide. See Fig. 2, *L*. No rubber or leather padding is used where the boat rests on the trailer frame as the former does not move on the latter so abrasions are impossible. The bow is anchored to the trailer hitch by running a 1½-inch web strap through the roller of a breast strap snap hook secured from a harness maker which was snapped to the ring on the boat's bow plate while the loop of the strap goes around the bar at *N*, Fig. 2, placed between the two portions of the V tongue piece.

Turn your boat upside down on the ground and fit your trailer frame, Fig. 1, to accurately conform to the shape of the hull. Do this with a draw knife. Take special pains at the step. Careful fitting of the saddle pieces *F* and *G* must be made to conform them to the contour of the bottom. Have the edge of the step rest on *G*. The cross member *K* does not touch the boat but is used for reinforcement.

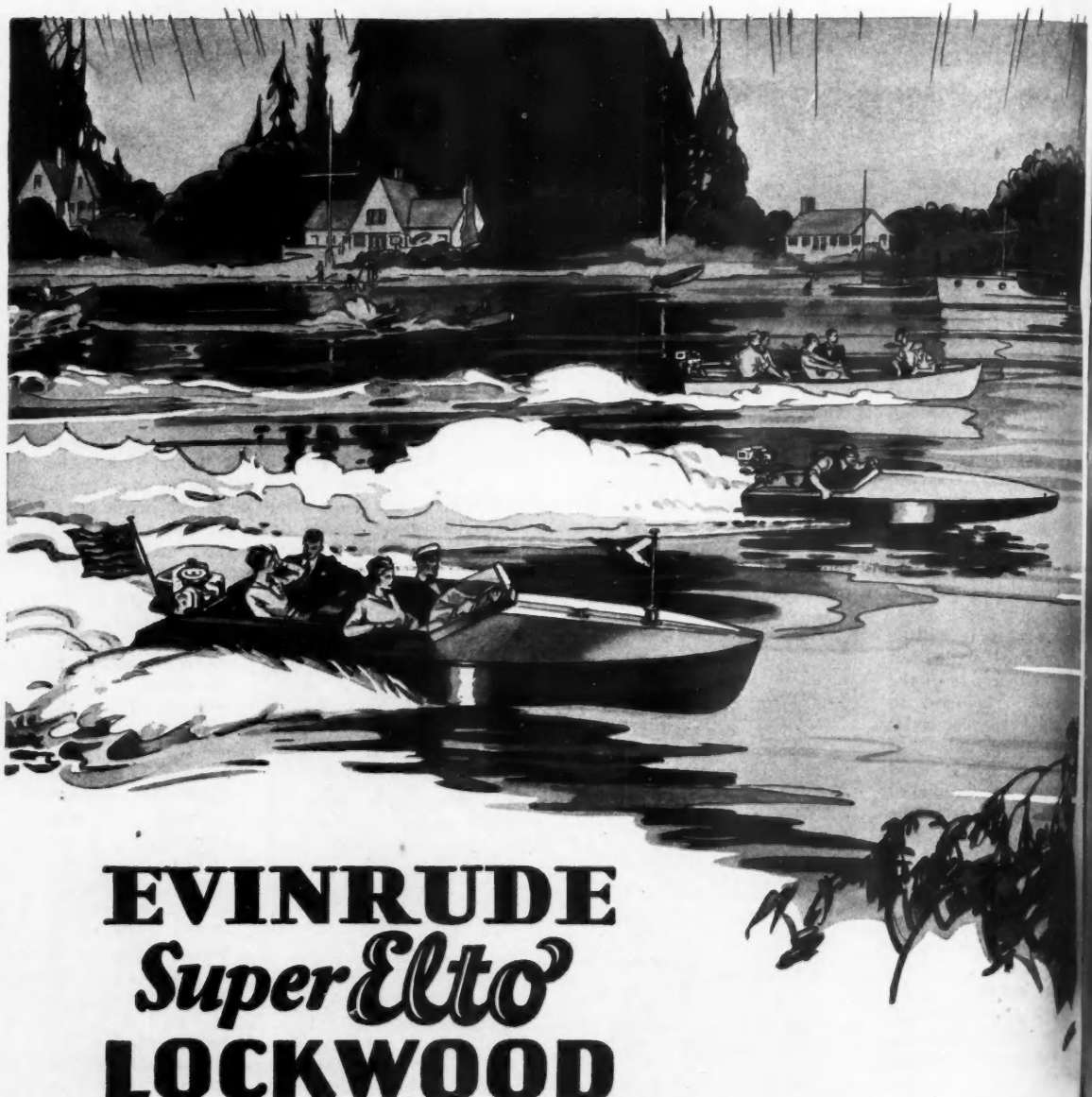




Figures 1 and 2 described in the text giving details of the trailer's assembly

The tongue triangle piece, Fig. 2, is attached to the frame, Fig. 1, as follows: The top of *A*, Fig. 2, goes below the cross piece *G*, Fig. 1 at *B*. The bottom of *C*, Fig. 2, rests on top of the cross piece *K* at *D* and to the under side of *K* in its middle is bolted the universal joint of the Ford axle unit. All attachments are with 3/8th inch bolts and 2 by 4 inch lumber is sufficiently heavy for the frame of a boat up to 200 pounds. Strap iron braces are used for all cor-

EACH *the* WORLD'S



EVINRUDE
Super Elto
LOCKWOOD

OUTBOARD MOTORS

Advertising index will be found on 3rd last page

BEST MOTOR!

AN Evinrude . . or an Elto . . or a Lockwood . . . each to its owner is the world's greatest outboard for his particular need and service!

—perhaps a light, compact, easy-to-carry model for average use on average boats. Here are *four* such motors to choose from — 2½ to 7 h. p.—38 to 59 pounds—two models that "fold like a jackknife" — battery or magneto ignition!

—or a larger motor for heavier boat or faster speed. Here *five* models await your choice—7 to 14 h. p.—62 to 75 pounds!

—or a still more powerful motor for record speed or husky big-boat power. Here are *three* great models — for extreme speed or cruiser comfort — the fastest or the most powerful — two or four cylinders!

You'll find *your* right motor in the Outboard Motors Corporation lines . . a Lockwood . . an Evinrude . . or an Elto . . all products of the widest, longest experience in the designing and building of outboard motors of all types, all sizes, for all purposes.

OUTBOARD MOTORS CORPORATION, MILWAUKEE

LOCKWOOD DIVISION
JACKSON, MICH.

ELTO DIVISION
MILWAUKEE, WIS.

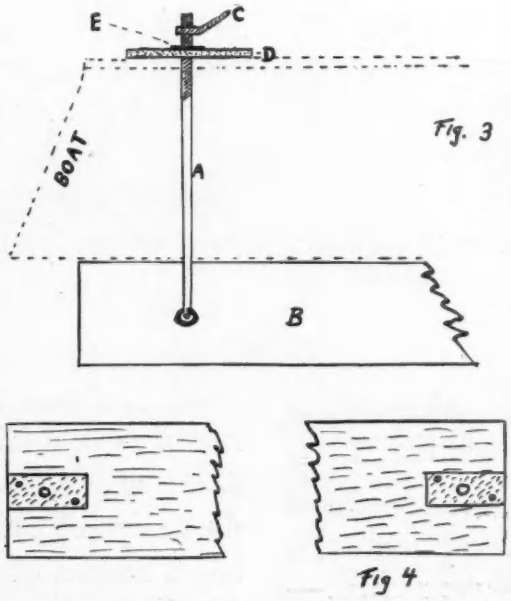
EVINRUDE DIVISION
MILWAUKEE, WIS.

CORPORATION

Ole Evinrude
President

ner connections. Your blacksmith will be able to rig up a suitable trailer hitch; most of this class of tradesmen are adept at this job because they are called upon so often these days to make trailers for farmers. The hitch *M*, Fig. 2, is held to the car unit by a bolt with hole in end for cotter pin or wire to assure against loss.

An important feature is the method of clamping the boat to the trailer frame. We used ¼-inch iron rods, one end threaded and the other end with a large loop or ring which is bolted loosely to the frame and the nut end hammered so as not to lose the nut. By having a free swinging rod it will swing down out of the way when you lift the boat off. See Fig. 1, *R*. Place a pair of these rods to the rear of the frame opposite the transom and another opposite the step. Across the top of the gunwales place a hardwood board, 4 inches wide and 1 inch thick and long enough to extend over the gunwales about 2 inches at either end. Fig. 3 and Fig. 4, *D*. Affix iron plates at either end of the clamping boards and secure them with screws and in the center of each bore a hole to receive the clamping rods. See Fig. 4 and *E*, Fig. 3. The nut *C*, Fig. 3, has an extension which facilitates screwing down onto the plate *E*. The boat side is held from any side swinging because it fits snugly against the rod and there is also no motion of the boat on the frame due to the secure clamping. This trailer frame accurately holds the boat in place; the clamping pressure is at the strongest points of the boat frame; the springs take up the major part of the jar in travel; the frame extends back over the axle, balancing the load and takes weight off the trailer hitch on the car, the weight of the boat is evenly distributed over the frame and only five points need attention when clamping or unclamping the boat. Experience with different types of camp and boat trailers prove that they in no way injure the car providing that the driver does not jump the clutch when in bad roads.



Details of the boat clamping arrangement

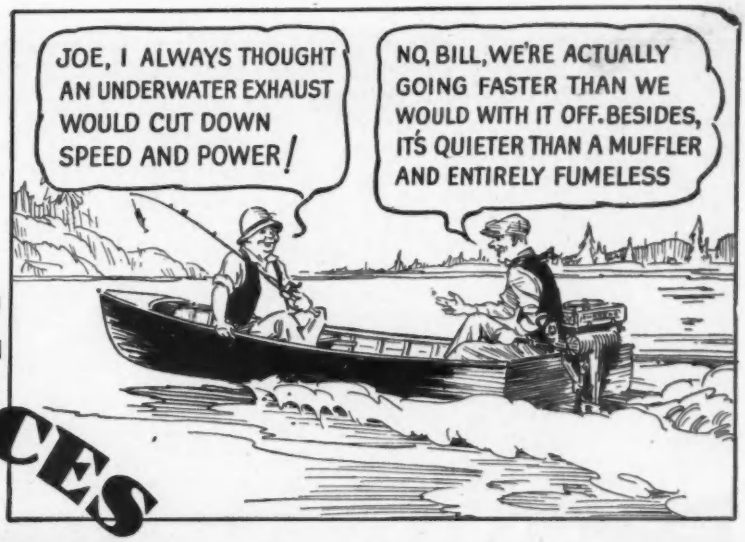
A good boat trailer enables the outboard motor owner to have a boat also and to enjoy its use even though he lives miles away from a suitable waterway and it goes a long way towards making feasible the outdoorsman's mastery over land and water travel and thus extends vastly his range of vacation activities. The safety of carrying your boat with you and the independence of itinerary soon pays for the initial cost of the home constructed boat trailer.

Particularly useful to the outboarder who follows the racing events around the country, a trailer will soon prove to be the most useful item of his equipment. A well constructed trailer will follow the car at high speeds along good roads but naturally bad roads will require more careful driving to protect the boat from injury.

A motor truck carries engines and a boat as well with full service equipment

For ***SPEEDITWIN and FASTWIN***

EVINRUDE ANNOUNCES


JOE, I ALWAYS THOUGHT AN UNDERWATER EXHAUST WOULD CUT DOWN SPEED AND POWER!
NO, BILL, WE'RE ACTUALLY GOING FASTER THAN WE WOULD WITH IT OFF. BESIDES, IT'S QUIETER THAN A MUFFLER AND ENTIRELY FUMELESS

UNDERWATER EXHAUST

The high pitched staccato tone of last year's quiet Evinrude muffler is transformed into a pleasing, low toned drone with this new underwater exhaust.

This latest Evinrude development for further quieting exhaust noises goes important steps beyond anything heretofore offered in all the nineteen years of Evinrude engineering.

Quietness with More Speed

This *tested* Evinrude Underwater Exhaust discharges burned gases underneath the surface of the water—noticeably bettering muffler quietness, but without the power and speed loss which the conventional muffler causes on Speeditwin and Fastwin, where power and speed are primary desires.

This phenomenal result of getting at least as much speed out of a muffled motor as if no muffling was used at all, solves a problem which has baffled engineers for years. Gone, too, are all unpleasant exhaust fumes, being atomized at water level.

Write for FREE 32-page Evinrude Year Book.

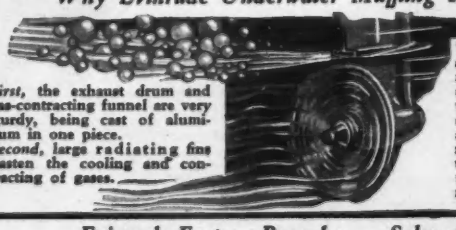
EVINRUDE DIVISION
Outboard Motors Corporation
1128 Twenty Seventh St. Milwaukee, Wis.

See our big exhibit at the National Outdoor Show, Coliseum, Chicago, May 6 to 11.

Four Evinrude "Twins"

Besides 20 H.P. Speeditwin, illustrated, choose from these: Fastwin, 14 H.P., 5 to 35 M. P.H., Fleetwin, 6 H.P., 4 to 25 M. P.H., Sportwin, 2½ H.P., 3 to 13 M. P.H. A size, a speed, a price for every boat and buyer.

Why Evinrude Underwater Muffling Increases Power



First, the exhaust drum and gas-contracting funnel are very sturdy, being cast of aluminum in one piece.
Second, large radiating fins hasten the cooling and contracting of gases.

Third, the turning propeller and forward movement of the motor through the water create a terrific suction at the underwater outlet. Gases are literally sucked out of the motor and the way cleared for the next discharge. There is actually no more back pressure than if the exhausting was done noisely in the open air.

Evinrude Factory Branches — Sales and Service

512 Second Ave., S., - - Minneapolis, Minn.
First Street near Front - - - - - Norfolk, Va.
115 E. 23rd St. - - - - - - New York, N. Y.
259 Atlantic Ave. - - - - - - - - Boston, Mass.
64 King Street, W. - - Toronto 2, Ont. Can.
117-119 Broadway - - - - - Oakland, Calif.
124 Second St. - - - - - - - - Portland, Ore.
79 Columbia St. - - - - - - - - Seattle, Wash.
6304 E. Jefferson Ave. - - - - Detroit, Mich.

Advertising index will be found on 3rd last page

"SILENCE IS GOLDEN"

Convenient Purchase Terms

are now offered by most Lockwood Dealers to those who wish to pay for a Lockwood Motor out of income instead of capital.

Advertising index will be found on 3rd last page

"SILENCE IS GOLDEN."

Silenced Exhaust
-without ANY Loss of Power

A Lockwood Feature that Makes Every Water Motoring Occasion So Much More Enjoyable

The long-wanted improvement in Outboard Motors is here. Lockwood Engineers have solved the problem of silencing exhaust noises and removing gas fumes. Today you will find waiting for you at your Lockwood Dealer's, an entirely new experience in outboard operation. Get into a boat driven by the New—

LOCKWOOD
"SILENT CHIEF"

and see for yourself how—

—Loud Exhaust Noises are gone. **—Disagreeable Gas Fumes are removed**

The most remarkable fact about this New Lockwood achievement is this—

There Is No Loss of Power

The Lockwood Chief, always famous for power and great speed, holder of 10 out of 12 1928 Official American records for Motors of its class, is actually *increased* in power and speed by this new Lockwood Improvement.

No Other Motor Offers You ALL These Advantages

First—Matchless speed in its class as proven 10 times out of 12 by official records.
Second—Silenced Exhaust without any loss of power.
Third—Elimination of exhaust fumes.
Fourth—Continuous automatic lubrication of both main and crank-pin bearings.
Fifth—The "Lockwood Pilot"—an exclusive safety feature which "takes hold of the Motor when you let go," leaves both hands free, holds your boat to its course and prevents sudden reverse.

In addition to these five major features, there are also — Protected Bakelite Gasoline Gauge, Improved Lockwood Carburetor, New Convenient Finger Tip Control, Pumpless Cooling System and the Extra Powerful Fly Wheel Magneto.

Other Lockwood Motors for this Season Include

The Lockwood "Racing Chief"—a motor that is all that the name implies, equipped with twin carburetors and fresh oil lubrication.

The Lockwood "Ace," a 50-lb. Outboard, developing about 7 h.p. and holder of every 1928 Official American Speed Record for motors of its class.

Write or send coupon today for copy of the New Lockwood Catalog

Lockwood Division
Outboard Motors Corporation
91 So. Jackson St., Jackson, Mich.

CANADIAN DISTRIBUTORS
McQuillin, Ltd., 1955 Georgia St., West, Vancouver, B. C.
Fred I. Mitchell, 1203 Notre Dame St., East, Montreal, Que.
Syco Supply Co., 330 Bay St., Toronto, Ont.
Marshall-Wells Co., Winnipeg, Man.

LOCKWOOD DIVISION
Outboard Motors Corporation, 91 S. Jackson Street, Jackson, Michigan
Gentlemen: Send me Free Catalog folder describing the new Lockwood Motors for 1929. I am particularly interested in
☐ "Silent Chief" ☐ "Racing Chief" ☐ "Ace"
Name .....
Address .....
City .....
State .....

M. Rosenfeld

Fraser's Bullet, a Boyd Martin boat, Johnson powered which established a new class D one mile record of 43.76 miles per hour at Miami Beach

A NEW CLASS D RECORD

Harrison Fraser Drives His Racer at 43.76 Miles Per Hour in Mile Trials at Miami Beach

NINETEEN twenty nine has already brought a new American Outboard Speed record. At the recent Miami Beach Regatta, Harrison Fraser of Auburndale, Florida driving his Boyd Martin boat powered with a 4 cylinder class D Johnson motor set up a new record of 43.76 miles per hour as an average speed for his six one mile runs made up and down the creek.

The conditions under which Mr. Fraser made his new record were anything but ideal for world's records. Quite a stiff wind blew up the course and there was considerable rough water to be traversed on Indian Creek where the trials were held. However, each of Frasers Bullet's six runs were better than the then existing one-mile record of 41.748 miles an hour, held by E. W. Travis of Peoria, Illinois.

All of the runs were electrically timed by Odis A. Porter, an Assistant Timer of the American Power Boat Association, assisted by T. E. Meyers of Indianapolis and Arthur J. Utz of New York.

Wires were extended the entire length of the one mile course with timers present at each end of the mile giving the starting and finishing signals electrically to the timing device. Times were recorded to the hundredth part of one second.

The details of each run follow:

Run No.	*Time*	*Speed*
1	1:23.20	43.27
2	1:20.99	44.45
3	1:23.73	42.96
4	1:20.95	44.47
5	1:24.26	42.73
6	1:20.61	44.66

Average Speed 43.76 m. p. h.

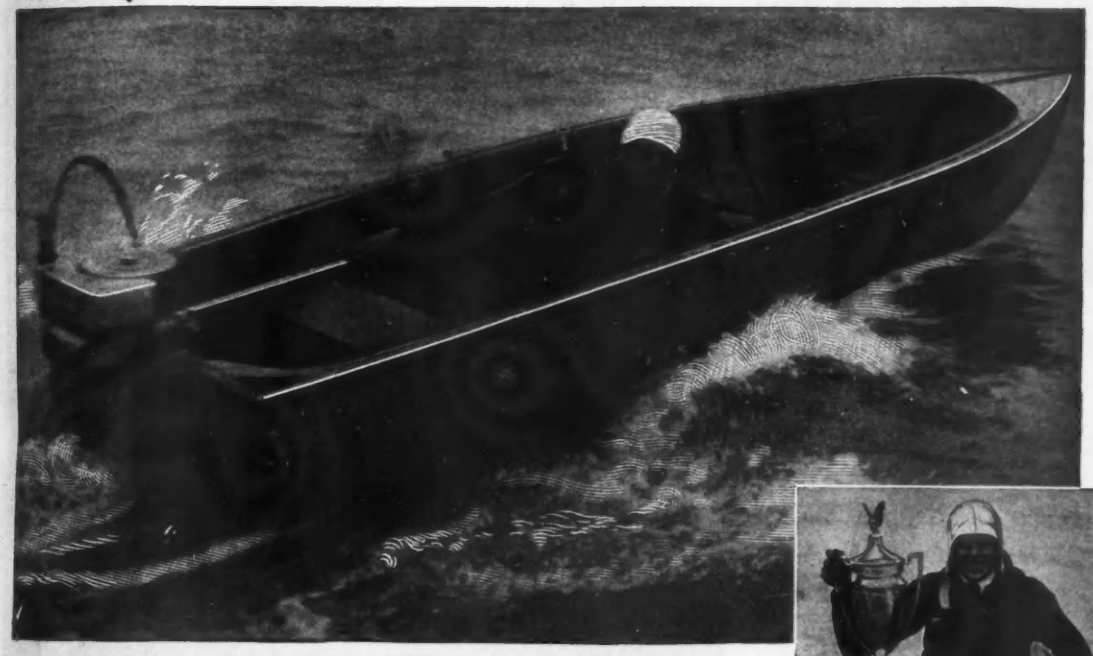
The trials at the re- (*Continued on page 240*)

Lookinback Kid, driven by Malcolm Pope, which won the Colonel E. H. R. Greene Trophy at the recent Miami Beach races

Thompson Hi-speed Fish Boat

"The *Fastest* Seaworthy Boat"

---That's What the Winner Says



and That's What the Milwaukee-Chicago Outboard Marathon Race Proved!

On June 2nd, Thompson Boats again demonstrated in most conclusive manner their superior seaworthiness and speed over a course so rough that few were able to reach the finish line. Franklin Cook, in his Thompson-Built "Vagabond," flashed through the Milwaukee-Chicago Marathon in comfort and safety, taking—

First Place in Class B and Fifth Place in All Classes Out of a Field of 95 Starters

Mr. Cook wired us as follows: "My Thompson Hi-Speed Fish Boat won First Place in B Class in the Milwaukee-Chicago Marathon Saturday, and Fifth Place in the entire race, competing with 95 of the fastest boats in the country. In my opinion the Fish Boat is the Fastest Seaworthy Boat on the market."

"The Only Boat To Finish Dry"

Mr. Cook writes:

"My Thompson was the only one to finish dry. I did not need to bail it out once the whole trip, and when I got in to Chicago the boat was in better condition than any other boat there. It is tight as a drum even after the most severe pounding a boat ever received. It rode level at all times and *did not pound*, the way all the other boats did. It cut through five-foot combers and really RODE them instead of smashing up and down all over the place. It maintained good planing speed even in the roughest water."

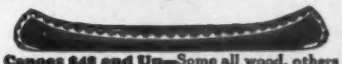
No other boat combines such comfort with utmost speed and safety.

Free Catalog shows a complete line for outboards, including Step-Planes, Family Models, etc. Write for it.

Write for the Free Thompson Catalog

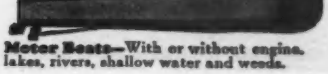
"Thompson Boats the World on Boats"

Outboard Motor Boats—A complete line of strictly up-to-date racing models, good for over 30 miles an hour. Also some entirely new models for general pleasure use with a speed of 20 to 26 miles an hour. Built strong and durable and absolutely safe.



Canoes $48 and Up—Some all wood, others canvas covered. Light, swift, safe, strong and durable. Choice of many distinctive color combinations.

Rowboats $44 and Up—The most complete line ever offered, at real money-saving prices.



Motor Boats—With or without engine. lakes, rivers, shallow water and weeds.

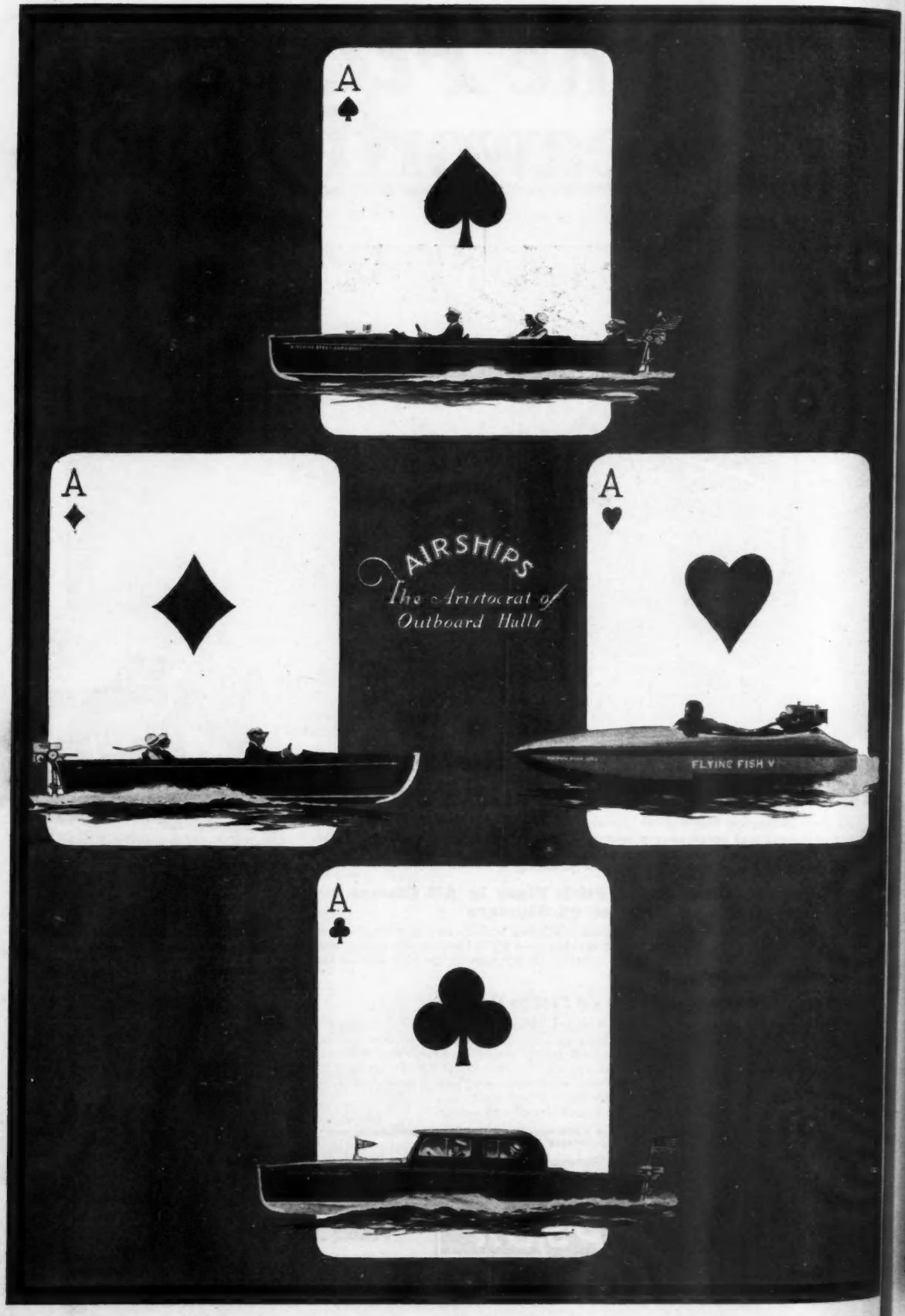
TWO BIG FACTORIES

BETTER BUILT BOATS
THOMPSON
BROS BOAT MFG. CO.

[WRITE TO EITHER PLACE]

210 Ann St.
Peshtigo, WISCONSIN

110 Elm St.
Cortland, NEW YORK



Advertising index will be found on 3rd last page

four AIRSHIPS Aces

A DISTINCTIVE roomy SPEED RUNABOUT is this 16-foot natural Mahogany hull; there is none finer built. Speed with real comfort is guaranteed. Designed for any type of outboard motor. Operated by automobile control from the driver's seat. This hull will provide your family with many years of boating satisfaction. Price $395.00.

THE 12-foot AQUA AERO has been scientifically developed by aircraft engineers for those who desire the extreme in speed. This hull is thoroughly streamlined throughout, with its unique bottom of four longitudinal and two lateral planes; built for speeds in excess of 45 M.P.H. Operated by automobile control from driver's seat. Price $290.00.

A 14-FOOT SPORT RUNABOUT in natural mahogany has been designed for those who require less accommodations than we offer in the SPEED RUNABOUT. Built especially for type B and C motors. Operated by automobile control from driver's seat. Price $300.00.

THE SEDAN-RUNABOUT, a 16-foot custom built seaworthy hull in natural mahogany. Sliding side windows in upholstered interior and dome light are a few of its many attractive features. An Aristocrat in every sense of the word. Full automobile control. Price $1075.

NATIONAL DISTRIBUTORS

V. WITHSTANDLEY & CO., INC.

(At Columbus Circle)

11 Central Park West **New York City**

The New Waterwitch Runabout

YOUR FRIENDS WILL WISH THEY HAD ONE, TOO!

The New 16 Foot 5 passenger Waterwitch is the smartest mahogany outboard for its size, speed, design and price on the market.

Built of mahogany with nickled fender streaks and deck hardware; seats and backs beautifully upholstered in Zapon Spanish leather, special sliding driver's seat and reversible seat backs, the Waterwitch

$373 complete

outboard runabout presents an entirely new design and completeness of detail never before offered the public. Don't fail to send for descriptive literature—Here's a real boat for the whole family to enjoy.

Attractive Dealer Opportunity

WaterWitch

"Sweeps the Water"

Catalog on Request.

DACHEL-CARTER BOAT CO., INC.

BENTON HARBOR MICHIGAN

The Seats Reverse or Fold Down to Make a Bed for Two

Outboard Notes

OUTBOARDS IN LIFE-SAVING SERVICE

In a recent test by Mr. Oluf Mikkelsen, the New York Distributor for the Evinrude Motor Company, made in conjunction with the steamer Wilscox of the Roosevelt Steamship Line, it was found that an Evinrude 20 h.p. outboard motor was capable of pulling very satisfactorily a 16-ft. boat containing 5 passengers, and a regulation life boat carrying 16 passengers, at the rate of 10 to 12 miles per hour. The fuel required by the motor proved to be about half a gallon an hour, so that the cruising range of a boat carrying an auxiliary supply of 5 gallons of gasoline wolud be about 100 miles.

In ship disasters, the outboard motor could well be put into service as a means of propulsion for the lifeboats, and one motor would not only be able to drive a single boat, but could be used as well to tow another. On the ocean liners themselves, and particularly on the ships which skirt the eastern coast from New York to the Gulf, the outboard motor has a very definite place as a means of bringing the survivors to safety after a disaster has occurred. With the ultimate aim of the preservation of human life, every possible precaution should be exercised on the sea. The outboard motor, victorious after the most gruelling tests, can well be made standard equipment on all ships as an added security for the lives of the passengers entrusted to their care.

Bill Higgins, winner of the $1,000 EHo prize wears UTE, the water proof suit in his races

THREE POWERFUL OUTBOARDS

Persons interested in keeping abreast of the most advanced features which are today being incorporated in the modern outboard motor, should write to the Lockwood Company at Jackson, Michigan, for their latest catalog.

Three powerful motors are fully described and illustrated, the class A Ace, class B Chief, and the new Racing Chief. Complete specifications are given in order that the reader may have an accurate idea of how the engines are constructed.

OUTBOARDS PERFORM FOR FLOOD RELIEF

An outboard motor regatta played a new role near Birmingham, Alabama, recently, when the Birmingham Motor Club decided to hold a regatta, the proceeds of which would be turned over to the Alabama flood relief fund.

Over 10,000 spectators paid admission to see the races in which a Sea Horse powered craft, piloted by George Cost, won both Class C and the free for all events.

OUTBOARDS REPLACE TUGS

A new field of usefulness for the outboard motor was discovered not long ago in the building of a million dollar sea wall near Tampa, Florida. Formerly, for transportation work on a job of this nature, it was customary to use tug boats, but on going over the situation, the New York firm which was doing the construction work, decided that outboard motors could do the work and accordingly purchased nine Johnson motors.

During the buildnig of the large coffer dams three Big Twins were operated on a barge and the work required that the motors be run continuously twenty-four hours a day. The work was done in shifts, two of the motors running while one was shut off for refueling and greasing. The Johnsons were also used in towing all barges, timber, derricks, etc.

(*Continued on page 216*)

Advertising index will be found on 3rd last page

FASTEST OUTBOARD TIME STRAIGHTAWAY 41.748 M.P.H. IN COMPETITION 39.93 M.P.H.

The **BULLET** comes in **Junior** and **Senior** sizes. The **Junior**, 11 ft. long, made racing history in 1928. The **Junior**, new for 1929, 12½ feet long, will undoubtedly shatter existing marks. (Patented Feb. 26, 1929. Infringements will be vigorously prosecuted.)

Made by The BULLET

IT'S THE SPEED CHAMPION of the world in its class! When records, official records were made, all others bucked the BULLET'S wake and watched its stern fly by.

There's another BULLET for 1929 called *Senior,* a little longer, 12½ feet. It will carry the new, heavier 1929 high speed outboard motors. We predict a new championship record close to 50 M.P.H. for 1929, and the BULLET will be champion again.

But that's not news because the BULLET has the heritage of champions. For three consecutive years the fastest time made by any outboard — any class — any distance — was made with Boyd-Martin boats. Champion blood will tell!

BOYD-MARTIN BOAT CO.
1058 Lee St., Delphi, Ind.

Write for Catalog

Send immediately for your copy of the new 1929 Boyd-Martin Catalog. Completely illustrated — every detail is described so you can know Boyd-Martin boats from stem to stern. WRITE TODAY!

Other 1929 Boyd-Martin Boats

VIKING, 18 feet long, V-type, family boat. Genuine African mahogany. For D and E motors.

DIANA, 16 feet long, V-type, 4-passenger runabout. Genuine African mahogany. For B, C and D motors. Upholstered lazy-back seats and six foot mahogany deck.

MERCURY, 16 feet long, V-type, family boat. Genuine African mahogany. For B, C and D motors. Lazy-back seats.

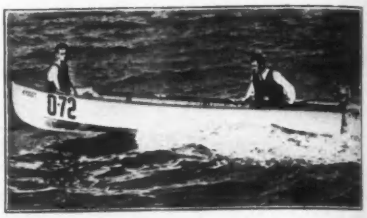
BARBARA, 18 feet long, a family boat with capacity for nine passengers. For B, C and D motors.

KINGFISHER, 16 feet long, family boat design similar to Barbara. For B, C and D motors.

COMMODORE, 18 feet long, a runabout with fore and aft cockpits. For C, D and E motors. Graceful fore deck, aft deck and upholstered seats.

BOYD-MARTIN *Boats*

OUR INVESTMENT



O-72

The first high speed championship boat was originally designed for fishing. It is still giving good service and the Kidney runabout is still an extremely satisfactory knockabout model.

OUTBOARD MOTORS were originally intended for use on any boat. Many of the small portable motors are still made for this purpose. Naturally they give better service on some boats than on others—and they cannot be used to advantage on boats built for greater power.

The high speed outboard motor was first produced experimentally in 1925 and went into production the following year. During the first year there were exactly three boats available for these motors—the Racine *Seaplane*, the Meraco *Racer*, and the Kidney *Fisherman*. When in 1926 we showed the *Fisherman*—O-72—at the Motor Boat Show with the announcement that 16 miles an hour would be normal speed that year, very few people were willing to take us seriously. It took nearly all of 1926 to convince the builders that the new motors could not be used on rowboats, but required special hulls of a different type—and some of them have not learned t yet.

This whole field is so new, changes and improvements have followed each other so rapidly, that past performance is too limited to serve as a measure of future service, especially where previous experience has been in some other field.

Boat performance is not a matter of good intention, nor yet a matter of pandering to a fictitious demand for decoration. Performance depends on sound principles, and no amount of trimming can give you good results without a proper hull.

Our location on the water gives us a practical point of view. We handle all makes of outboard motors and many different makes of boats. With the whole field from which to choose, our only interest is in performance. A boat to us is not a name, but a definite ability to deliver a certain service, be that speed, comfort, or the ability to handle a load under all weather conditions. Our value to you lies in the fact that our experience is not merely with boats but with boat users. We recognize your needs, your particular requirements, as the determining factor in the selection of a satisfactory outboard motor boat. Our interest—and this is important—is not in *our investment* in merchandise but in *your investment* and in your return. In fact, it is not merchandise we offer you, but a service in finding the proper merchandise for the conditions under which you wish to use the boat you buy.

LUDINGTON LIGHTNING

The Racing Boat of today is not a service hull at all, but a wonderful little speed machine. This Ludington Lightning is giving a good account of itself.

We have for years been closely associated with outboard racing—which is the laboratory of the industry. We carry many stock designs in fast boats—but that does not mean that you can make records with any of them. Records, in most cases, are made not with stock models

Advertising index will be found on 3rd last page

YOUR INVESTMENT

LYMAN DECKED 15'

For all round use the highest development is found in the Lyman sea skiff models. These boats are safe in any weather, with any power, carrying any load. If there is such a thing as leadership in this field it belongs to Lyman.

but with special hulls designed purposely to be faster than stock boats.

Racing is, however, a limited field and most boats are intended for more practical use. Is it not true, however, that while you can find out easily what this or that racing boat has done there is very little information available concerning the performance given by the boats intended for ordinary use? We need not and do not question the claims of the builder or manufacturer, yet the fact remains that two boats with the same maximum speed may, and probably will, vary in the way they perform with your load and in your waters. They may act well with a light load and poorly with a heavy load, and what is even more important, the reverse may also be true. Of two boats quite equally good on paper one might easily prove a great deal better for you than the other. We are here to save you the expense and inconvenience of buying the wrong boat in order to find out that some other is what you should have.

Take another item. We refuse to sell you any hull that prevents your handling your motor under any normal combination of circumstances. We recognize the possibility that you may shear a pin at a time when minutes are vital. If you do not know the importance of this item it is no less than our duty to post you, no matter how strong the eye appeal of a trick arrangement of seats and cushions. In other words, while we have no desire to dictate we have no right to assume that you know and you have every right to assume that we know which items are vital and which are purely decorative. We are not ashamed of a very strong prejudice in favor of boats that will stay afloat.

We sell boats and motors at the same prices that they are obtainable elsewhere. The tremendous business that we have built up is the best evidence that the service we offer, in addition to mere merchandise, is of real value to our customers. We will be glad to serve you.

HELMA

If with all round performance you wish to combine something more than the minimum in looks—without sacrifice of the comfort essential to proper operation—Helma will give it to you. Note the comfortable seats, the amount of space in the cockpit, the accessibility of the motor. What the picture cannot convey is the easy riding quality of this hull.

Outboard Motor Headquarters

BRUNO BECKHARD

FLUSHING BRIDGE, FLUSHING, N. Y.

The new

Autopulse

Electric Fuel Pump

Offers You New Outboard Thrills!

. . providing More Power . . Greater Speed . . Better Performance . . and a Larger Cruising Radius

Above is shown a Dee Wite Runabout, using an Autopulse equipped outboard motor—real runabout performance and comfort.

Install an Autopulse Electric Fuel Pump on your outboard with a reserve fuel tank . . increase your cruising radius five times . . do away with frequent refueling and loose cans of fuel.

Autopulse gives your outboard motor new pep, new power. It gives you the thrill of runabout performance. It insures a positive supply of clean, filtered gasoline under all driving conditions, regardless of the position of the boat.

The AUTOPULSE Electric Fuel Pump is designed for use on MOTOR BOATS, OUTBOARD MOTORS, AUTOMOBILES, BUSES and TRUCKS

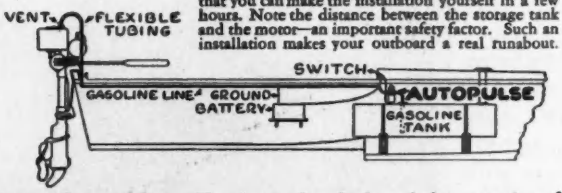
Solve Your Fuel Problems Once and for All . .

Autopulse operates entirely independent of the motor. Turn on the ignition and clean, filtered gasoline is sent to the carburetor. As the speed of the motor increases or decreases the fuel is supplied accordingly—in the exact quantity necessary for best performance.

Autopulse is easily installed. See your nearest dealer at once or write for full information.

Autopulse is Easily Installed on Any Outboard . .

The drawing below shows how simple an Autopulse installation is. Complete instructions are provided so that you can make the installation yourself in a few hours. Note the distance between the storage tank and the motor—an important safety factor. Such an installation makes your outboard a real runabout.



A Fuel System Providing Every Feature that Improves Performance . . The Autopulse single unit has capacity of over 12 gallons per hour. It provides a high degree of performance for any outboard motor. It is the dependable, safe, sure method of fuel supply that turns boating worries into boating pleasures.

AUTOPULSE CORPORATION

2821 Brooklyn Avenue **Detroit, Michigan**

Autopulse Improves the Performance of any Motor

OUTBOARD NOTES

(*Continued from page 212*)

OUTBOARD INDUSTRY GROWS RAPIDLY

With the exception of radio, the fastest growing industry in America today is the manufacture of outboard motors, according to figures revealed by D. K. Chadbourne of the Johnson Motor Company, Waukegan, Illinois, at a recent gathering of outboard motor dealers and distributors in San Francisco.

The outboard motor holds a unique position in American life, according to Mr. Chadbourne. Particularly the high speed motors developed within the last two years. Fast travel on water gives an exhilaration unobtainable in any other way—and this does not exclude flying.

Until the advent of the high speed outboard motor these thrills were only for the wealthy, for speed boats are expensive. Now outboard motors costing only a few hundred dollars, are driving family runabouts 25 to 35 miles per hour, and the speed is increasing yearly. These two factors—speed and low cost—have brought water motoring to the mass of the people, all within a few months. Herein is the explanation of the phenomenal development of the outboard motor industry.

TO EXPLORE SOUTH SEA ISLANDS BY OUTBOARD

Sailing from San Francisco recently on the S. S. Sierra, F. D. Barstow of Miami, Florida, embarked on one of the most unique trips known to the motor boating world.

Mr. Barstow took with him a Johnson Sea Horse 3 outboard motor which he plans to use constantly during a trip through American and British Samoa, the Fiji Islands and others, which are inhabited principally by natives and where mechanical motive power, and the outboard motor in particular is little known.

With the Sea Horse, Mr. Barstow plans to visit many little islands which are never touched by the ocean going liners. He is carrying all sorts of motion picture equipment and will be accompanied by a professional cameraman. He hopes to capture a living story of native life in the South Seas.

Mr. Barstow has great faith in his little engine, having used a Johnson on a similar trip a few years ago and on several occasions demonstrated this faith by traveling over open ocean for distances of from 30 to 40 miles between islands.

EXECUTIVE APPOINTED FOR CLEVELAND DISTRIBUTORS

The Barnes Boat Mart, Johnson distributors in Cleveland, Ohio, announce the appointment of Mr. Richard Crago, who will be in complete charge of sales and service on Johnson Sea Horses in the Cleveland territory covered by this dealer.

The Barnes Boat Mart is very enthusiastic over the sales possibilities in the new Johnson Sea Horses and feels that the underwater exhaust, which is incorporated in these new motors, will meet with a great public acceptance in Cleveland during the coming season.

SEA HORSE NAMESAKE AT HOME UNDER WATER

What do a couple of years spent in Davy Jones' Locker mean to the life of an outboard motor?

Apparently nothing, if we understand correctly the statement of Mr. James L. Boyd, proprietor of Mason Lake Resort, Fifield, Wisconsin.

Two years ago, Mr. Boyd was demonstrating a Johnson Light Single motor out in the middle of Mason Lake. Somehow or other the motor slipped off the transom of the boat and disappeared in some forty feet of water.

It was not until just the other day that it was recovered, to all appearances none the worse for its under-water sojourn. A new condenser for the magneto was the only repair or replacement necessary. The motor is reported to be running now as well as it ever did.

KANSAS CITY-ST. LOUIS MARATHON

The dates which have been set by the Kansas City Outboard Motor Boat Club for the second annual Kansas City-St. Louis marathon are Sunday and Monday (Labor Day) September 1st and 2nd.

The club is busy at the present, lining up prize money and trophies for this 407-mile classic, and from the present outlook it seems that the cash prizes to be competed for will run over the $3,000 mark.

Many of the boys from both of the terminal cities as well as intermediate points along the river course have already sent in their entry applications, and from the early enthusiasm shown, it appears that there will be a real hot contest for the honors of the longest marathon of the mid west—for further information or entry application blanks address secretary of the Kansas City O. M. B. C., 1332 McGee St., Kansas City, Mo.

(*Continued on page 218*)

Advertising index will be found on 3rd last page

Action Speaks

Louder than words

The boat that made 42.65 Miles per Hour!

Read this amazingly consistent record *of* Ludington victories *in Florida:*

GULFPORT
JANUARY 20, 1929
Ludington Lightning takes a first place in C class and second place in free-for-all.

WINTER HAVEN
JANUARY 24, 1929
Ludington Lightning takes second place for entire regatta on point system.

GULFPORT
FEBRUARY 10, 1929
Ludington Lightning wins one heat C class and one heat in free-for-all.

NEW PORT RICHEY
FEBRUARY 17, 1929
Ludington Lightning takes first place in all C class races.
Ludington Hydro takes second place.

PALM BEACH
FEBRUARY 22, 1929
Ludington Lightning wins all three heats of C class.
Ludington Lightning takes second place in free-for-all.
Ludington Lightning takes first place in local pilots free-for-all race.
Ludington Lightning takes first place in chance race.

PUNTA GORDA
FEBRUARY 25, 1929
Ludington Hydro wins all free-for-all events, driving a city block ahead of nearest competitor on water with a two-foot roll.

AST Fall we forecast a season of victories. We knew that expert design and aircraft principles of construction made Ludington boats the fastest on the market. Out of 34 starts 1928-1929 Florida Season, various Ludington Lightnings driven by E. Gresh took 28 firsts, 4 seconds, 2 thirds and bettered the existing class C world's record at Mt. Dora. The Hydro for rough water, and the Lightning for smooth water—and they are both "Built for a Two-Reef Breeze."

***Send for** an attractive folder describing the Ludington Hydro and Lightning, as well as the 7-passenger Ludington Buccaneer.*

MT. DORA
MARCH 2, 1929
Ludington Lightning takes first place in C class events, traveling at 42.65 miles per hour. More than 6 miles per hour faster than existing record!

SARASOTA
MARCH 8, 1929
Ludington Hydro wins first heat C class.
Ludington Hydro takes second place free-for-all. March 9, 1929.
Ludington Lightning wins two heats in C class.
Ludington Hydro wins two heats free-for-all.

ST. PETERSBURG
MARCH 18, 1929
Ludington Lightnings win both heats class C.
Ludington Lighting first in free-for-all.

MIAMI
MARCH 21, 1929
Ludington Hydro wins class C race, division 1.
Ludington Hydro wins class C race, division 2.
Another Ludington Hydro takes second place, class C, division 2.
Ludington Hydro takes 3rd place in Colonel Green Trophy Race. (Used stock 1928 class C motor, and race was unlimited as to motor, boat, and driver!)

LUDINGTON

LUDINGTON AIRCRAFT, Inc.

808 ATLANTIC BUILDING

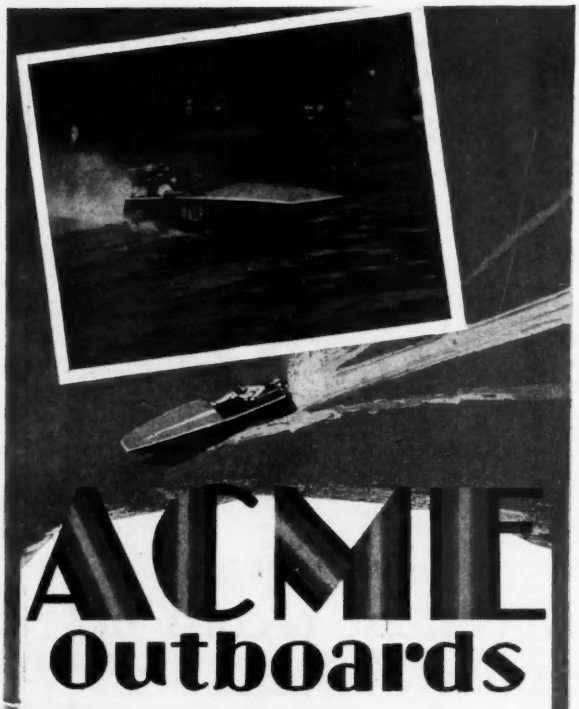
PHILADELPHIA, PENNA.

DEALERS:
With such a list of victories marked up, the Ludington Hydro and the Ludington Lightning are sure to be in big demand this season. Orders placed now will receive first consideration.

LUDINGTON AIRCRAFT, Inc.,
808 Atlantic Building, Philadelphia, Penna.
Please send your folder on Ludington Boats.

.....

.....



ACME
Outboards

ACME RACING WASP
ACME RUNABOUT

THE WASP. Fastest boat built for use with high speed motors and a prize winner, as the records to her credit prove. An exceptionally husky craft that handles easily on either rough water or smooth, and consistently outdistances her rivals. If you would win races this year, drive an ACME WASP.

THE RUNABOUT. The ideal combination of speed, roominess, comfort and cruising qualities. Here is the boat that everybody can enjoy, you, your family, your friends.

There are no finer boats in the entire Outboard field than this year's ACME, reflecting, as they do, nearly forty years practical boat building experience.

Descriptive literature and specifications of the entire ACME 1929 line, including the 18 ft. Acme Cabin Cruiser, upon request.

The Acme Boat Co.,

512 Oak Street Miamisburg, Ohio

Outboard Notes

(*Continued from page 216*)

ANOTHER FOUR CYLINDERED OUTBOARD

A new Four-Cylinder outboard motor has been developed by the Jule Motor Corporation of Syracuse, N. Y., which contains several unique features. It is a square motor of the four cycle type with bore and stroke of 2⅞ inches. Regular equipment will include hydraulic starter hydraulic steering, enclosed flywheel and oil cooler. Contrary to ordinary practice the motor is mounted on the back transom and not above it. Steering is accomplished by turning the propeller housing without moving the motor. Present plans call for delivery of the first of these engines about the middle of June.

OUTBOARDS IN AUSTRALIA

A report from the Melbourne, Australia, representative of the Lockwood Division of the Outboard Motors Corporation contains the information that Lockwood motors have been successful in winning all the class B events which have been held there, also running into places in class C and open events.

A very creditable performance was shown by Mr. Les Walters, driving his Lockwood Chief powered Viopake through Port Phillip Heads, through the Rip into the open. The Rip, as its name implies, has the reputation of being a very rough spot, and this is the first and only attempt ever made to negotiate it with an outboard.

NEW ZEALAND SPEEDSTER

That outboard motoring enthusiasts are now being numbered in almost every country on the globe, is evidenced by this photograph of John Burns and his Evinrude powered boat, Miss Arawa 29, of Auckland, New Zealand. The New Zealanders too have evidently succumbed to the thrilling sport of outboard racing, and are developing some real speed challengers. The Speeditwin powered Miss Arawa 29 has been credited with a time of 37.25 miles per hour, which would certainly rank the boat well in any American competition. This photograph coming from far-off New Zealand reminds us that the rapidly accelerating interest in outboard motorboat racing is not limited to the enthusiasts who are now numbered by the thousands in every state of the Union, but is world-wide in its ardent following.

A UNIQUE CATALOG FOR OUTBOARDERS

We have recently received one of the cleverest catalogs of boats which we have seen in some years. It is a generally accepted fact that Fairchild Boats, Inc. have a designing staff which produces boats of a most modern type; a type which is considerably different in technical aspect from the usual form of outboard boat. It is this difference which is chiefly responsible for the remarkable success of the Fairchild outboards.

Now we know that their sales department is just as forward looking as the engineering staff for the new catalog is a most remarkable and interesting piece of work. Not only are complete specifications of the six models of Fairchild outboard racing boats, runabouts and cruisers included in the book but there are also photographs of each of the boats in service. The most interesting feature of the book is the use of blueprint reproductions of the profile and arrangement plans of each model.

Any reader of MOTOR BOATING who desires a copy of this catalog can obtain one by writing Fairchild Boats, Inc., 41 West 43rd Street, New York City, mentioning this magazine.

PLANS UNDERWAY FOR NEWPORT AND WORCESTER REGATTAS

Plans are already being developed for the Annual Motor Boat and Seaplane Meet to be held at Newport, R. I., this summer. The Narragansett Bay Regatta Association, under whose auspices the meet is to be held, is at work on the arrangement of the various events and it is their plan to so schedule the events as to include all classes of runabouts and outboards.

Worcester, Massachusetts, is also at work on its Memorial Day Regatta, and it is the hope of the committee in charge to make this year's races one of the biggest events of the season.

THE FOLDING OUTBOARD

A booklet prepared by the Elto Outboard Motor Company illustrates graphically the many advanced features embodied in the construction of the Super Elto Lightweight Twin. Not the least of these is the unique idea of having the motor so hinged as to permit of its being folded into a very compact unit for carrying purposes. Easy starting, light weight, weatherproof ignition, and improved exhaust muffling are a few of the other desirable points which are built into this modern little engine. Copies of this booklet may be secured by writing the Elto Company at Milwaukee, Wisconsin.

(*Continued on page 220*)

Advertising index will be found on 3rd last page

GREATEST BOAT VALUE *in its* class

16 FEET LONG
54 IN. BEAM
DOUBLE PLANKED BOTTOM

$535

F. O. B. FACTORY
COMPLETE
READY FOR
MOTOR

IN THE new Dee Wite you will find performance, beauty and durability no motor-boat of anywhere near its price has offered before. That's why it occupies its present unchallenged position in the boating field—why it is the most popular small runabout ever built. The Dee Wite is a sleek, gleaming all-mahogany family craft, perfectly suited to either fresh water or salt water service, finished and furnished like the finest and fastest motor-boats afloat—priced for families of average income!

A Dee Wite offers you this: Front seat control, automobile steering, sloping two-piece windshield, beautiful nickeled hardware, luxurious upholstery with seats for six, electric running lights, full streamline hull with inboard motor mounting—and numberless other exclusive features.

Your Dee Wite will thrill you with its performance, and its beauty. For health and recreation on the water—this summer, and many to come—order your new Dee Wite now! Deferred payments through Commercial Credit Companies, if desired. Dealers in all principal cities.

DWIGHT LUMBER COMPANY · · RIVER ROUGE, MICHIGAN
Boat Division, Dept. 55

ALL MAHOGANY

Dee Wite

PLEASURE CRAFT

Sport Model Safety Model Speed Model

DOLPHIN AKWA SKEES

3 to 50 Miles An Hour

SELF-BALANCING water skis, better riding and more easily controlled than an aquaplane. No diving, scramble or spills—just thrilling speeds. Easily towed by any type of craft from outboard boat to cruiser or speed boat. Price $15 to $35 per pair.
DOLPH, a game to play on Akwa Skees, aquaplanes, etc. Set $5 to $15.

If your local boat or sporting goods dealer cannot supply you order direct

LIBERAL DEALER DISCOUNTS

DOLPHIN AKWA-SKEE COMPANY
Huntington, Long Island, New York

The Last Word in
OUTBOARD EQUIPMENT!

There's a lot more to outboard motor boating than just skimming along the water. The newest and most up-to-date fittings on your craft will not only add to its smartness, but will make outboard motor boating more than ever "THE SPORT OF SPORTS." Send for newly printed circular showing all the newest outboard equipment. Prompt deliveries are assured.

If interested in our complete range of boating supplies and equipment for all kinds of water craft, write for our free marine catalog, famous everywhere as "the one book that tells you EVERYTHING about boat fittings."

Established 1840

GEO·B·CARPENTER & Co.

Marine Supplies *Sailmakers and Riggers*

200 W. AUSTIN AVE., CHICAGO

Outboard Notes

(*Continued from page* 218)

OUTBOARD SAVES FLOOD VICTIMS

Reports from the flood stricken South again tell thrilling tales of rescues made possible through the use of outboard motors.

C. P. Cawthon, Elto dealer at Florala, Alabama, tells of the heroic work done by two of his towns-men in a home-made boat powered by an Elto Speedster.

"During the recent flood disaster at Elba," writes Dealer Cawthon, "we took all of our available boats and motors to the rescue, a distance of forty miles.

"One of our Elto Speedsters mounted on a 16-foot home-made row boat manned by Acy Henderson and Clarence Jordan, of Florala, made the record of rescuing over two hundred persons from house tops and trees.

"Acy Henderson handled the motor, the first time he ever used a Speedster, and he says the quick starting and easy handling saved him from capsizing a number of times.

"These two men continued the rescue work until the guards stopped them on account of the danger, then they continued to carry supplies to the marooned on house tops.

"Some of the boats were swamped in the swirling waters, but this little Speedster and heavy boat stood up under all conditions, and it has been sent to other places to do further rescue work."

OUTBOARDS EXHIBITED IN NEW ROCHESTER SHOW ROOM

The Mayer Boat Company of 1333 St. Paul Street, Rochester, N. Y., have accommodations in a spacious new show room where facilities are available for the display of a complete line of outboard boats.

They have on hand fourteen carloads of Thompson Boats crated and ready for delivery as well as a considerable stock of Hooton planes, Evinrude and Elto motors, and miscellaneous marine supplies.

The new quarters have an especially desirable location, with a frontage of 108 feet on a main traveled highway to Lake Ontario which is four miles distant.

OUTBOARD INSURANCE

Believing that every owner of an outboard motor and hull is desirous of insuring his craft, the National Outboard Association offers to all its members a new cooperative service in its insurance plan.

One of the purposes of the association is to provide insurance and protection for outboard motors and hulls (singly and together) against loss from fire, theft or marine perils, over a period of one year. This insurance provides as desired by the applicant, partial or complete protection from such losses at extremely low rates.

The insurance plan offered by the association provides all members ample insurance at such reasonable rates that no outboard owner will want to be without this protection. Three plans are offered, any one of which (not more than one, however,) may be selected by the outboard owner.

N. O. A. IN ACTION

The National Outboard Association, which for some months has been in the making, is now not only organized, but has selected an executive secretary, headquarters location, and is undertaking active development of the purposes for which it has been found. George O. Hoehn, selected as the first executive secretary, comes to the organization with a wide experience which well qualifies him for the work in hand. E. F. MacDonald is National Commodore, O. K. Hunsaker, Vice-Commodore, J. Stern, Treasurer and W. E. Willis, Chairman of the Board of Directors.

SPEEDSTERS COMPETE FOR COL. GREEN TROPHY

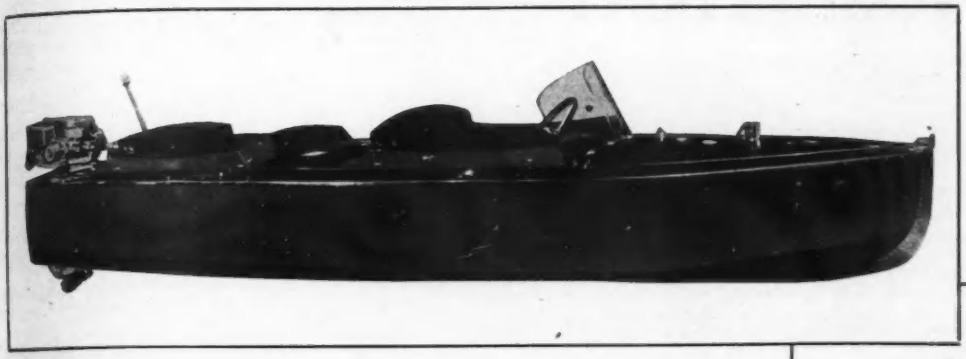
At the recent regatta at Miami, an outboard piloted by Malcolm Pope, and powered with one of the new four-cylinder Johnson Sea Horse 32s was successful in carrying off the Colonel Green trophy. Another Sea Horse driven craft piloted by Dick Upsall, captured second place in this event. In addition to this important victory, Sea Horses, were winners of first and second places in a number of the other contests.

MARINE OIL PROVES ITS QUALITY

Further evidence of the satisfaction rendered by Duplex Marine Oil under all conditions of service is furnished in the fact that Kermath has standardized on the oil for use in all its motors. Greater power and speed, increased cleanliness about the engine and better oil economy are factors largely responsible for the selection of Duplex. At the same time, the fact that Duplex is procurable almost everywhere is a most desirable feature.

(*Continued on page* 222)

The Finest Outboard Boats ever Built!



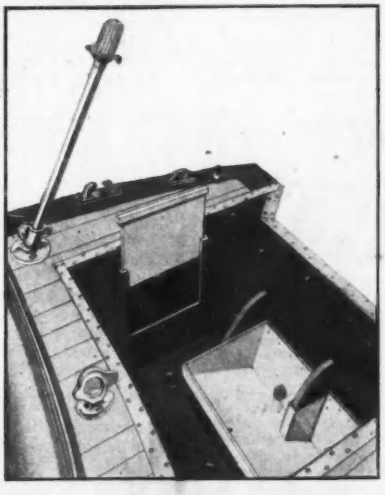
Smart .... Swift .... Safe ....
Seaworthy .... Sound ....

Design!

Chase - Emerson Boats are among the few to be designed by a naval architect of national reputation. C. A. Nedwidek designed both Runabout and Knockabout models for Chase-Emerson exclusively.

CHASE-EMERSON OUTBOARD BOATS

At every show at which they have appeared, Chase-Emerson Boats have been acclaimed as the finest of all outboards! Their beautiful lines . . . the soundness of their construction throughout . . . their wonderful finish . . . the new luxuries of appointments—all these things served to put them far and above anything that the outboard field has ever known before. Here at last are the "de luxe" of the outboard—sixteen feet long—four and a half feet beam—capable of speed of 20 to 30 miles an hour (depending on the motor used)—seating five people comfortably in the Runabout models and eight or more in the Knockabout—by construction and design intended for use with the newer type of outboard motor. To see just how thoroughly Chase-Emerson has gone into building boats that are practical in detail, study the design of the special "engine well" pictured here. It is of ample proportions to carry any make of motor. Note the compartments at sides where tools can be kept. Note the drip pan which carries any excess gas or oil overboard — insuring a clean boat at all times.



Knockabout models start at $525, F.O.B. Norwalk, Ohio.

Dealers!

A few desirable territories are still open to those who act immediately. Write or wire for franchise information today.

— Catalog Free —

A. B. CHASE-EMERSON CORP. 11 W. 42nd St., New York, N. Y. Factories Norwalk, O.

Buy AN Airubber PAD and FLOAT

FOR your small speed boat or racer, the Airubber Floor Pad and Float saves you, saves the boat. Absorbs jump-shock, cushions you in luxurious comfort, helps keep the boat afloat if upset. Never watersoaks. Easily strapped in the boat.

On larger boats, serves as a cockpit and deck cushion, bunk mattress, swimming float, emergency life raft, beach cushion.

Inside rubberized strong khaki jean; vulcanized in *one* fabric and *one* complete air pad. New fast valve with interchangeable caps for inflating any way. No. 517 illustrated, size 26½" x 48", price $10.00. Other popular sizes: 12" x 34½", 26½" x 25", 24" x 30", 26½" x 36", 26½" x 42", 22" x 40" and 30" x 40". Prices on application.

Neptune Life Preserver

In life preservers, the Airubber Neptune with least weight and most comfort gives you full protection. Official equipment on all U. S. Navy seaplanes. Has two separate pairs of tubes, two valves. Worn deflated, is light and comfortable as a vest. Inflated in a few seconds by blowing. Weight, 17 ozs. Price, $5.00.

Sold by best camp and boating outfitters. If not supplied, please write.

Airubber DEPARTMENT

Folders, complete catalog and 2-qt. camp water carrier mailed to you FREE.

New York Rubber Corp., Box 48, Beacon, N. Y.

You'll "get along" mighty fast in this motor-driven Old Town

THERE'S joy in the sheer fleetness of this Old Town square-stern canoe. Equip it with an outboard motor, and watch the "suds" slip away behind. Sport—no end!

Sturdy and durable too, and its sleek lines give it grace and poise at all speeds. Light and perfectly-balanced. With or without sponsons.

Write today for free catalog. It shows and prices many light, watertight models. Paddling, sailing and square-stern canoes, extra-safe Sponson models, dinghies and sturdy family boats. Also speedy craft for outboard motors—racing step planes and hydroplanes. Old Town Canoe Co., 986 Middle Street, Old Town, Maine.

"Old Town Canoes"

PATENTS PENDING

E.Z. CONVEYOR

Every owner of an outboard motor should own an outboard E. Z. CONVEYOR. Do away with that strenuous work carrying your motor back and forth. Makes a very fine working stand. Gives you lots of clearance to work on any part of your motor—it also keeps your motor from toppling over and many other advantages. It simply pays for itself over and over.

These Conveyors are extremely rugged in construction—carry any type of motor on the market, all metal and enameled to prevent rusting. Steel frame work with 12" roller bearing disc wheels with 1-3/16" rubber tires.

ON DISPLAY AT ALL GOOD MARINE DEALERS OR WRITE

E. Z. OUTBOARD MOTOR CONVEYOR, Inc.

1363-1367 East 26th Street, Brooklyn, N. Y.

Order today to insure early delivery

$20 F.O.B. FACTORY

Outboard Notes

(*Continued from page 220*)

OUTBOARDS MUST HAVE RACING NUMBERS

A system of lettering and numbering all racing outboard boats has been worked out by the American Power Boat Association. As these numbers are one of the conditions of eligibility for racing, every racing owner should make application to the proper authority as given in the following list:

Maine, New Hampshire, Vermont, Massachusetts, Connecticut, Rhode Island—Frank Wigglesworth, 20 Brookline avenue, Boston, Mass.

California, Nevada, Oregon, Washington, Idaho—1 to 499, A. L. Bobrick, Bobrick Chemical Company, Los Angeles. Numbers above 500 from A. T. Griffith, Hippodrome Building, Peoria, Ill.

Virginia, West Virginia, Georgia, Alabama, Maryland, Delaware, Washington, D. C.; New Jersey, New York (1 to 800), Pennsylvania, Wisconsin, North Carolina, South Carolina—1 to 449, W. E. Willis, 85 Chambers street, New York. All others and New York above 800, A. T. Griffith, Peoria.

Florida, 1 to 299, I. C. Spinney, Tampa; 300 to 599, Guy Ashley, Miami; above 600, A. T. Griffith.

Michigan, 1 to 499, Dr. A. R. Hackett, David Whitney Building, Detroit; 500 up, A. T. Griffith.

Ohio, 1 to 499, J. Robinson, above 500, A. T. Griffith.

All other States, all numbers, A. T. Griffith.

The letters preceding the racing numbers are assigned as follows: A, Maine, New Hampshire, Vermont. B, Massachusetts. C, California and Nevada. D, Connecticut and Rhode Island. E. Virginia and West Virginia. F, Florida. G, Georgia and Alabama. H, Maryland, Delaware and Washington, D. C. J. New Jersey. K, Kentucky, Tennessee and Indiana. L, Louisiana, Arkansas and Mississippi. M, Michigan. N, New York. P, Pennsylvania. R, Oregon, Washington, Idaho. S, Ohio. T, Texas. U, North Dakota, South Dakota, Wyoming, Montana, Nebraska, Colorado, Utah, Arizona. V, Illinois. W, Wisconsin. X, Minnesota and Iowa. Y, Kansas and Missouri. Z, North Carolina and South Carolina.

NEW LINE OF OUTBOARD SPEEDSTERS

A new booklet has just been brought out by Fairchild Boats, Inc., to illustrate their 1929 series of outboard hull models.

The 12-foot Aero, 16-foot Perfex, 23-foot Voyageur, 10-foot Minima, 16-foot Maxima and 18-foot Superba comprise this line, which is sufficiently complete to include a model for every outboard requirement from racing to cruising.

Departing somewhat from conventional outboard design, the Fairchild boats embody a number of noteworthy features such as high speed with a maximum of safety, comfort and rough water ability. A request addressed to the Fairchild Company at 37-11 West 43rd St., New York City, will bring one of these catalogs to your address.

DEEP SEA BUBBLES

Yachtsmen are always glad to learn of a new book which brings to them the real atmosphere of the sea. Deep-Sea Bubbles is a remarkable story of sea adventure which has that quality. It is the story of the clipper ship Anna Lombard on a mysterious whaling cruise, as told by her third mate, Henry H. Bostwick. D. Appleton and Company are the publishers.

A NEW SUPER-ENERGY MAGNETO

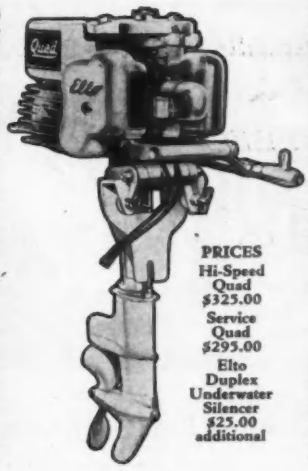
A new magneto for 6-cylinder engines has been announced by the Robert Bosch Magneto Company, Inc. This instrument, known as the type FR 6, is designed especially for use on marine and similar engines where large cylinder capacity or high compression make an unusually powerful magneto desirable. The general appearance of the type FR 6 magneto closely resembles that of the Robert Bosch FU type. The chief apparent difference,—besides its slightly larger size,—is the distributor plate which has the high tension outlets at the front instead of at the top. Generous margins of safety are provided to take care of the high voltages developed. The collector ring and certain other electrical parts have been liberally increased in size.

The type FR 6 magneto generates an igniting spark at the crankshaft r. p. m. This insures an effective starting spark even at the slowest hand crank speeds. It is recommended for engines operating normally up to 3,000 r. p. m., which covers practically the whole range of commercial engines.

This magneto has all the features characteristic of Robert Bosch Super-Energy magnetos which have proved highly successful under all sorts of operating conditions. These features include permanently lubricated ball bearings, gap type distributor, dust proof and water proof construction and one-piece aluminum alloy frame.

(*Continued on page 224*)

Advertising index will be found on 3rd last page



The Mighty Quad—Two Super Smooth 4-cylinder Models—Without a Single Rival for

Speed,

A breath-taking tornado of power — power that slashes up to and beyond the 40-mile mark at a swing of the throttle. Power that retains its velvety smoothness even when the tachometer hand flirts toward 6,000 on the revolution scale. No other outboard motor travels in the peak speed range of the Super Elto Quad. None other has shown such capacity to maintain and dependably deliver top speed in race after race, short sprints and longest distance runs.

Sport,

Luxurious power for luxurious runabouts. Speed that with quiet, comfortable ease matches the pace of all but fastest racers. The positiveness and simplicity of Elto's Exclusive Quarter-turn starting. Synchronized one-hand controls with quiet operation insured by a new-type muffler or Elto Duplex Underwater Silencer. *More than* an outboard motor on a boat—an *entirely new development* of sparkling, joyful water transportation.

or Cruising

Rugged power for husky cabin boats. A 2-to-1 propeller gear turns high motor revolutions into sturdy power for a big, load-pushing wheel. Gives 20-mile speed on comfortable, seaworthy boats equipped with every accommodation for care-free cruising.

Write today for complete catalog on the Hi-Speed Quad, the Service Quad, and other Super Elto models.

The Super Elto Quad

ELTO DIVISION
OUTBOARD MOTORS CORPORATION
Ole Evinrude, President
Mason St., Dept. F, Milwaukee

An Outstanding Canvas-Covered Speed Boat

KENNEBEC YANKEE FLYER II

$260 F.O.B. Waterville

Speed, Comfort, Beauty, Staunch Construction

An improved model of the popular Kennebec 1928 Yankee Flyer. A stronger bottom, a new style stern, better seats, etc. Finished in flashy colors, graceful lines throughout. Extra bracing under seats and half ribs on bottom add strength. Canvas-covered hull always watertight. Can be taken out of water at any time without shrinking. Comes in mahogany or spruce finish. Equipped with brass deck fittings, backrests and cushions.

Prices, F. O. B. Waterville, Maine—Spruce Model, $260; Mahogany Model, $275. Write for photo-illustrated catalog of speed boats, canoes, rowboats, paddles, equipment, etc.

The Kennebec Canoe Co. Dept. 52 **Waterville, Maine**

GEORGE F. CROUCH

INCORPORATED

Designing - Building - Hauling

HARPOON

A fast, able, easy riding Outboard Motor Runabout at $295

SPLIT II

A racing Tri-plane

SEC OND

Standardized Runabouts and Express Cruisers. Gold Cup Boats.

MIDDLETOWN, CONN.

BRANFORD

OUTBOARD MOTOR AND BOAT CONTROLS

STEERERS

Special Fittings for All Motors

THE MALLEABLE IRON FITTINGS CO., BRANFORD, CONN.

Eastern Distributors: E. J. Willis Co., 85 Chambers St., New York City

Outboard Notes

(*Continued from page 222*)

OCEAN VOYAGERS RESCUED AT SEA

A short time ago a 73-year-old Dutch inventor by the name of Jacob P. Schuttevaer set sail from Rotterdam with two companions bound for New York on a twenty-foot non-sinkable life boat of his own design. Their craft bore considerable resemblance to an ordinary life boat except that it carried an enclosed superstructure which gave it the appearance of a toy submarine. It was equipped with two helms and a mast, which carried away in the Bay of Biscay. After being rescued there and landed at San Juan, they trans-shipped to New York, bringing their boat along aboard the rescue craft.

MIAMI TO NEW YORK BY OUTBOARD

Two adventurous voyagers are demonstrating the reliability of the outboard motor by driving their fifteen-foot outboard powered craft from Miami to New York. Leaving Miami April 1, they expect to travel about two hundred miles a day and reach New York in ten days, barring serious mishap. The boat, the name of which is Ramseybout, is powered by two Lockwood Racing Chief motors and piloted by J. D. Ramsey and H. S. Harris.

CORRECTIONS TO BOAT SPECIFICATIONS

Apology is made for an error occurring in the April issue of MoToR BoatinG in the list of specifications of standardized boats. The speed of the Banfield Sea Skiff 32 was given as 25 m. p. h., but this model with the 200 h. p. Kermath as regular equipment, is rated at 28-30 m. p.h.

More up-to-date figures are also available for the Dodge line. The new Dodge sedan series is composed of a twenty-footer. Universal or Dodge powered, a 26-footer in either open or sedan type with Lycoming or Scripps engine, and a 30-foot boat supplied with either Hall-Scott or Packard power.

Speeds range from 22 to 60 m. p. h. depending on model and motor selected. All are of the mahogany runabout type. An excellent catalog is available, giving complete specifications of the Dodge models, which may be had by writing the Horace E. Dodge Boat Works, Detroit, Michigan.

DELAWARE CLUB CHANGES NAME

At the annual meeting of the Delaware Outboard Motor Boat Club, it was voted to change their name to the Diamond Yacht Club and to affiliate with the American Power Boat Association under that name. The present membership numbers approximately fifty. Present plans for the season include two competitions to be held on the Fourth of July and Labor Day.

AUTOMOBILE AGENCY TO HANDLE CHRIS-CRAFT

Announcement is made by the Jones Motor Company of Toledo, Ohio to the effect that they have taken over the distribution of Chris-Craft in and around the city of Toledo. The Jones Company is well-known as the local Hupmobile agent.

PHILADELPHIA CONCERN MOVES N. Y. OFFICE

On or about April 20, the Stoker Division of the American Engineering Company will move its office from 100 Broadway to the American Radiator Building, 40 West 40th Street, New York City. The American Engineering Company is the builder of the Taylor Stoker, Lo-Hed Hoists, Jurwick Refrigerating Machines and Marine equipment.

BIG STANDARDIZED CRUISER PROVES POPULAR

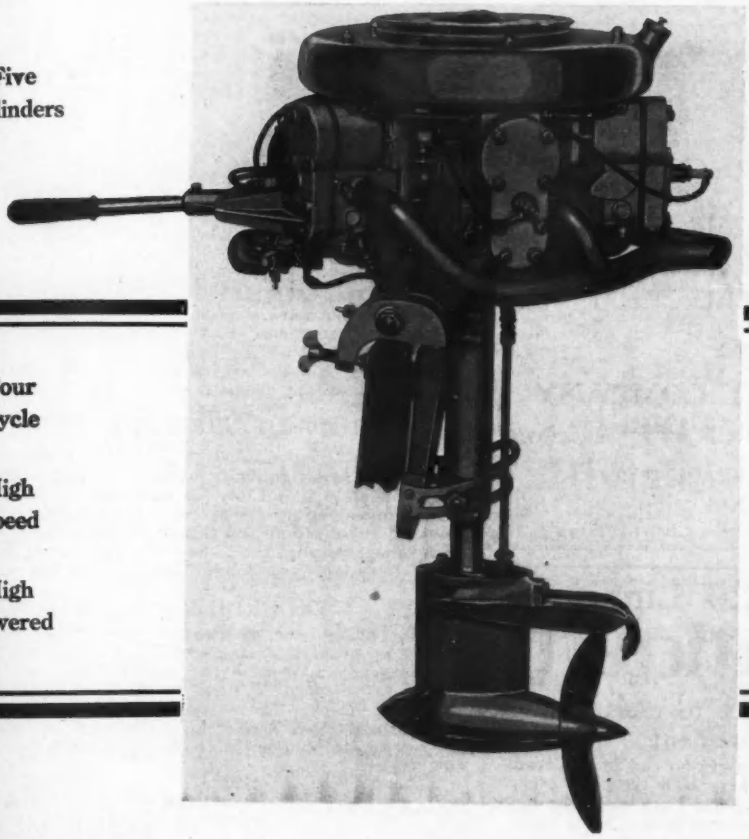
Henry C. Grebe & Company, naval architects of Chicago, Illinois, are the designers of the popular 62-foot Sunbeam cruiser. At the present time they have under construction four of these attractive cruisers scheduled for spring delivery to prominent yachtsmen. It is significant that the Sunbeam has been chosen by these men, who have had considerable yachting experience and each of whom has owned other boats.

One of these new boats, powered with a pair of 6-cylinder Hill Diesels will be owned by C. P. Bentley of Owosso, Michigan. A second, for T. O. Dunlop, Cincinnati, Ohio, will have two Sterling Petrels with reduction gear and the third, with a pair of direct drive Wintons, is owned by R. G. Hascall of Cleveland. The fourth is for Ole Evinrude, who has selected two 8-cylinder Sterling Dolphins for motive power.

(*Continued on page 226*)

CROSS

The Most Powerful Outboard Motor



Five Cylinders

50 H.P. at 4000 R.P.M.

Four Cycle

High Speed

High Powered

Ball Bearing Connecting Rods

Force Feed Lubrication

Ball Bearing Crank Shaft

MODERN engineering skill has produced in this new Cross five-cylinder radial outboard motor not only more horsepower per pound of weight, but flexibility heretofore unknown in the outboard field. Instant starting, lightning acceleration with perfect throttle control and speeds up to 50 miles per hour. Pusher or puller propeller.

Write today for full particulars

CROSS GEAR & ENGINE CO.
3260 Bellevue Avenue **Detroit**

TRADE MARK
CROSS
ESTABLISHED 1898

MANUFACTURERS OF THE FAMOUS CROSS PRODUCTS

Announcing . . .

CRANDALL COMET

OUTBOARD RACING HULLS

LESS WETTED SURFACE
LESS RESISTANCE THAN ANY OTHER OUTBOARD CRAFT

CRANDALL BOAT COMPANY

Builders of **"CRANDALL CRAFT"** *Runabouts*

NEWPORT BEACH
CALIFORNIA

A New 1929 Line!

Pnumaticraft

Reg. U. S. Pat. Off.

a type and price to meet every requirement

Any lover of water sports can get no end of fun from a Pnumaticraft Aerbote! There is a type for every purpose, from the sporty "two-man" model to the big Pnumaticraft which makes an ideal tender for a yacht or motor boat. Every type absolutely safe and dependable. Packs into easily carried bag when deflated, stows into small space when not in use. Write for details, prices and name of dealer near you.

Dealers are invited to write for attractive trade proposition

PNEUMATIC BOAT CORPORATION
122 Branford Place (Dept. MB 529) Newark, N. J.

NEEDED FOR YOUR CRUISE!

Take a "PASTOR" Combination Watch and Stop-Watch with you. You will find it a friend in need whether to time your shafting or to clock the speed of a passing boat. Used by the U. S. Government after tests proved it the most durable made, regardless of price. Unbreakable crystal. Nickel finish. Fully guaranteed. $9.95. Send for one today

No. 100—Yacht Timer $15.00.

No. 3—1/5 Second, 30 Minute Register Timer $12.65.

STERLING STOP-WATCH COMPANY
Dept. M. 15 East 26th St. New York, N. Y.

Outboard Notes

(*Continued from page 224*)

NEW ELECTRIC FUEL PUMP

The new Autopulse Electric Fuel Pump, brought out a few months ago, is enjoying a splendid reception by motor boat and outboard enthusiasts, according to P. A. Kempt, General Manager of Autopulse Corporation.

Greater speed, more power, and smoother performance are all said to result from this new method of fuel supply. Every drop of gasoline is filtered. By operating entirely independent of the motor the Autopulse provides an important safety feature. The moment the ignition is turned on the flow of gasoline begins, filling the carbureter only as the engine needs it—the flow is automatically regulated by the needs of the motor. The flow is shut off the instant the ignition is turned off. This constant supply of fuel just as it is needed has made possible great improvements in motor performance, according to Mr. Kempt. Regardless of the position of the boat the Autopulse insures ample supply of fuel and makes possible the installation of fuel tank in any part of boat.

On outboard motors the Autopulse does away with the carrying of loose cans of fuel, by the use of a reserve tank that can be installed away from the motor. Thus the outboard motorist can greatly increase his cruising radius.

Among the new features of the 1929 Autopulse are included a pumping capacity of over 14 gallons per hour, a positive spring suspension, a frictionless bearing, a rigidly constructed armature that is riveted and practically noiseless, a single or two-wire system and self-contained, and mirror-faced bakelite valves, which have exceptional wearing and seating qualities and are easily replaced.

A nation-wide dealer organization provides installation service for motor boat and outboard users everywhere.

OUTBOARD CROSSES WINNIPEG IN FAST TIME

Maurice Smith, secretary of the outboard motor section of the Winnipeg Canoe Club, together with his brother, was successful in making the run across Lake Winnipeg in his Evinrude powered step hydroplane. Despite the fact that it was an especially rough passage, the 23-mile-run from Grand Beach to Winnipeg Beach was accomplished in the short time of 45 minutes.

VANDERBILT BUYS A BOAT

Howard W. Lyon of New York has been commissioned to deliver a sedan-type fast runabout to W. K. Vanderbilt, according to representatives of the builder. The boat will have a maximum speed of 65 miles an hour, driven by two Liberty engines developing 425 horsepower each.

The runabout is 35 feet long, has a 10-foot beam and is of two-step hydroplane design. The craft has accommodations for ten persons.

INDIAN HARBOR Y. C. TO HAVE NEW FLAGSHIP

A new Robador has just been launched at the Luders Yard at Stamford, Connecticut. She was built from Luders designs for Commodore Robert Law and will be the flagship of the Indian Harbor Yacht Club. She is 105 feet in length and will have a speed of 25 m. h. p.

NEW METAL RUNABOUT

The use of aluminum alloy for outboard racing hull construction has been attended with such success that the Alloy Boat Corporation of Buffalo, New York, has developed a new craft with metallic hull and an inboard engine installation.

The model consists of the installation of a 25 h. p. Van Blerck Junior motor in one of the standard Slipabout or Sport Slipper hulls with propeller shaft and rudder equipment so arranged to permit of raising for beaching as in the outboard models. Engine equipment is complete with starter, clutch, generator, etc.

NEW HARBOR CHART BOOKS OUT

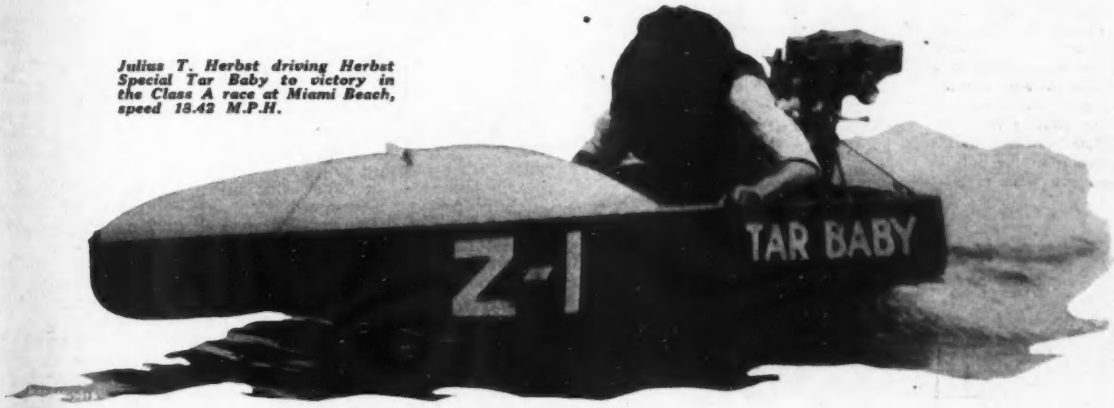
The Eldridge Books of Harbor Charts, New York to Boston and Boston to Bar Harbor, published by the Kelvin-White Company will be available May 1st. In view of the fact that these are published in limited editions, orders should be placed promptly.

Each book is bound in heavy canvas, roughly 17" x 27", each harbor is numbered and indexed so that it is a very simple matter to open up the book at any particular harbor desired when the courses, distances, lights and fog signals are plainly shown, and is just the thing the amateur yachtsman and motor boatman needs. A copy of the Eldridge Tide and Pilot Book is given with every Harbor Chart Book purchased.

Advertising index will be found on 3rd last page

—and at Miami Beach Regatta

HERBST BOATS WIN



Julius T. Herbst driving Herbst Special Tar Baby to victory in the Class A race at Miami Beach, speed 18.42 M.P.H.

FIRST—Class A, Div. I and II
FIRST—Class D, Division II
FIRST—Class E, Division I

Also second in Free-for-All Race for the Col. Green Trophy, Speed 30.89 M. P. H.

Julius T. Herbst awarded Championship of Regatta—2300 Points.

AT the Miami Beach Regatta, March 20 and 21, Herbst boats captured more firsts than any other make of outboard boat. There were nine events. Herbst won three and took second place in the Free-for-All Col. Green Trophy Race in competition with twenty other boats. Victories such as these are quite the usual thing for Herbst and merely repeat what Herbst boats have been doing throughout last year and indicate what these fast racing hulls will do at the importantregattas this year. Drive a Herbst boat and be a winner.

A Herbst Boat for Every Purpose

CLASS A
Herbst Special
Length 9'. Weight 80 lbs.

CLASS B
Herbst Special
Length 10'6". Weight 100 lbs.

CLASS C
Herbst Special
Length 10'6". Weight 125 lbs.

TWO FAMILY TYPE RUNABOUTS

Herbst Viking
Length 14 feet

Herbst Viking Jr.
Length 16'9"

Herbst "Rubber Baby" Racers

Goodrich Aeroboard Rubber Bottoms can be supplied on any model at small additional cost. Rubber Baby I and Rubber Baby II—the Herbst sensations of the 1928 racing season were constructed of Goodrich Aeroboard, which makes Herbst Boats faster and stronger. Aeroboard will not shrink nor crack; it is non-absorbent, it stands the punishment of choppy seas and rough usage; it is not affected by worms and has fewer joints than wooden hulls.

HERBST BOAT WORKS, INC.

WILMINGTON, NORTH CAROLINA

Builders and Designers

OUTBOARD RUNABOUTS **OUTBOARD RACING HULLS** **OUTBOARD CRUISERS**

Skiboarding

A new and thrilling water sport

CAN you imagine anything more thrilling than literally flying along the water's surface on a self propelled aquaplane? Well, that's Skiboarding, the newest water sport and latest thrill for water enthusiasts. Any make or size outboard motor may be used. It steers by shifting the body, responding quickly to the mere leaning of the body in direction you want to go.

Non-sinkable
Non-capsizable
Much easier to ride and safer than the towed aquaplane.

Write for full particulars.

Representatives Wanted: The popularity of the Skiboard is spreading fast, and now is the time to get dealer rights in your territory. Write today.

DISTRIBUTORS: Atlantic Radio & Marine Co., Inc., Boston; Wilbur H. Young & Co., New York; The Tyler Co., Baltimore; HamLoc Marine Sales Co., Wilmington, N. C.; Paul B. Martin, Rochester; B. H. Dyas Co., Los Angeles; Worthy R. Brown & Son, Inc., Lakeside, Ohio; Barnes Boat Mart, Cleveland; American Car & Foundry Co., Detroit.

SKIBOARD CORPORATION
72 HUBBARD STREET BROOKLYN, N. Y.

SHERMAN

Waterproof Spark Plug Hoods

Shed Water Like a Duck

LET the spray drench your outboard motor. It will not miss if the spark plugs are protected with snug fitting Sherman Waterproof Hoods. Not only that but the motor will start easier, because the terminals are always dry and free from grease, oil and all foreign elements.
Sherman Spark Plug Hoods are inexpensive and fit any type plug (push or fork type terminals) in all makes of inboard or ouboard motors as well as for Knight type motors.

Type "F" Special for Outboard Motors

Marine Distributors:

W. & J. Tiebout
118 Chambers St.
New York City

E. J. Willis Co.
85 Chambers St.
New York City

SHERMAN MOTOR PRODUCTS, Inc.
17 WEST 60th STREET NEW YORK CITY

Save with SANDUSKY BOATS

IF you want a speedy little sport boat or a staunch family outboard runabout you'll get the best from Sandusky—AND SAVE 15% TO 25%. Sandusky boats are made from the choicest mahogany wood and are perfect in design and workmanship.

Write today for free information on all types and prices.
Dealers write for franchise.

SANDUSKY BOAT WORKS
304 MEIGS STREET SANDUSKY, OHIO

A Message From the Coast Guard

To all Yachtsmen and Motorboatmen:

Since its creation in 1790, the U. S. Coast Guard has, each year, in the performance of its duties boarded and examined many thousands of vessels. The Coast Guard is not charged with the enforcement of the National Prohibition Act, but it is charged with the prevention of the smuggling of liquor into the United States from the sea. In the performance of this particular duty, which is no more nor less than upholding the Constitution of the United States, the Coast Guard must stop, board, and examine vessels.

Because yachtsmen and motorboatmen are considered, as a class, to be law-abiding American citizens, yachts and motorboats used solely for pleasure, which may be plainly recognized as such, will not ordinarily be stopped, while underway, for boarding and examination by the Coast Guard, unless particularly suspicious circumstances require such action.

Many small pleasure craft closely resemble, in size and general appearance, the boats used by rum runners. It therefore follows that pleasure craft occasionally must be stopped, and possibly boarded, in order that their identity and innocent character may be ascertained. This need occasion no concern or annoyance. All that is required is that reasonable spirit of co-operation on the part of those in charge of pleasure craft that surely is to be expected of all good citizens.

Every person in charge of a pleasure craft is supposed to keep a reasonable and proper lookout over the water in his vicinity. This is necessary in the interest of good navigation and is to be expected of every good sailorman. No person is safe to be intrusted with the navigation of any vessel who does not occasionally take a glance around the horizon. Such a proper lookout will readily disclose the presence of any Coast Guard boat that may be signaling to you to stop. Coast Guard vessels are easily recognized as such and all fly the distinguishing Coast Guard ensign. The Coast Guard boat will use her whistle, or Klaxon horn, or a megaphone, and visual signals, such as waving the arms or a signal flag repeatedly, in order to attract your attention. If you ignore, or do not observe, such repeated signals, it may be necessary for the Coast Guard craft to fire *blank* warning shots. If these fail to produce any result, the Coast Guard vessel is then justified in firing warning shots, well clear of the fleeing craft, and in assuming that she is endeavoring to escape.

As soon as you observe signals from a Coast Guard vessel, calling upon you to stop, do so promptly. You will be delayed the minimum time necessary to establish your identity and innocent occupation. There is no case on record where it has been proven, or seriously alleged, that men of the Coast Guard, in boarding vessels, have been guilty of any discourteous or ungentlemanly conduct.

Remember that should your boat need assistance of any kind, the entire available resources of the Coast Guard are yours for the asking. Bear in mind that in the last fiscal year there were 6,846 instances of assistance rendered by the Coast Guard and that it saved or rescued from peril 3,983 human lives. The Coast Guard is performing only its duty in this anti-smuggling work, and your cooperation, as good citizens, is earnestly requested.

F. C. BILLARD,
Rear Admiral, U. S. Coast Guard,
Commandant.

REMOTE OUTBOARD MOTOR CONTROL

Many people have objected to outboard motoring on account of the awkward position which cramps their necks and arms. Now, however, a little device has been designed to add to outboard pleasure and ease of control. It is a remote outboard motor control just announced by the Wilcox-Crittenden Company, well known manufacturers of marine hardware.

This remote control, typical of the constant advancement in the efficiency of outboard motoring, has the exclusive feature of permitting all necessary movements of the control lever from full choke to all speeds from any position in the boat without the necessity of disengaging any portion of the control when it is necessary to choke the motor.

JULY 4 REGATTA AT GALVESTON

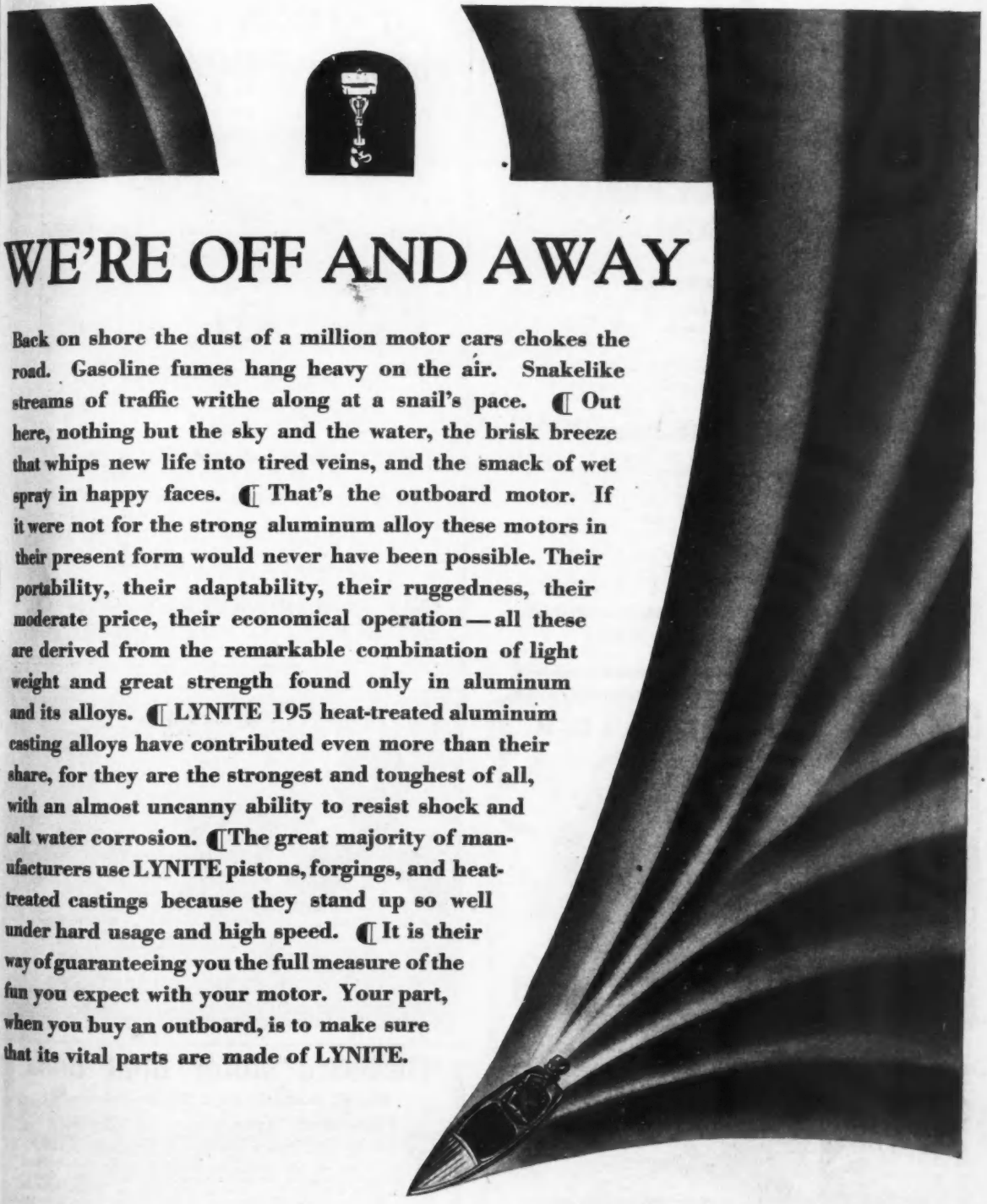
July 4-5 has been announced by the Galveston Outboard Motor Boat Club as the scheduled date for its regatta. Included in the events is a 75-mile marathon around Galveston Island. It is expected that cash prizes will amount to at least $2,000, in addition to a considerable number of trophies.

ANOTHER MEMBER ACCEPTED BY A. P. B. A.

As the result of a recent vote, the Anthracite Outboard Motor Boat Club has been elected to membership in the American Power Boat Association.

Advertising index will be found on 3rd last page

THIS IS THE AGE OF ALUMINUM



WE'RE OFF AND AWAY

Back on shore the dust of a million motor cars chokes the road. Gasoline fumes hang heavy on the air. Snakelike streams of traffic writhe along at a snail's pace. ¶ Out here, nothing but the sky and the water, the brisk breeze that whips new life into tired veins, and the smack of wet spray in happy faces. ¶ That's the outboard motor. If it were not for the strong aluminum alloy these motors in their present form would never have been possible. Their portability, their adaptability, their ruggedness, their moderate price, their economical operation — all these are derived from the remarkable combination of light weight and great strength found only in aluminum and its alloys. ¶ LYNITE 195 heat-treated aluminum casting alloys have contributed even more than their share, for they are the strongest and toughest of all, with an almost uncanny ability to resist shock and salt water corrosion. ¶ The great majority of manufacturers use LYNITE pistons, forgings, and heat-treated castings because they stand up so well under hard usage and high speed. ¶ It is their way of guaranteeing you the full measure of the fun you expect with your motor. Your part, when you buy an outboard, is to make sure that its vital parts are made of LYNITE.

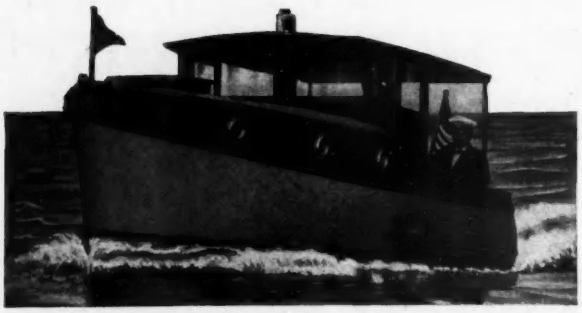
LYNITE

ALUMINUM ALLOYS

ALUMINUM COMPANY OF AMERICA

PITTSBURGH, PENN.

ALUMINUM · IN · EVERY · COMMERCIAL · FORM



Outboard Powered!

ROCHESTER "21" Cruiser

—13 miles per hour
—wide cruising radius
—sleeps four comfortably
—completely equipped

Astonishingly Low Priced!

A combination of cruising comfort and seaworthiness never before obtained under 23 feet! Sleeping accommodations for four, galley with all cooking conveniences, ice box, clothes locker and lavatory. Bridge controlled and electric lighted throughout. The large four-cylinder outboard motor is mounted under a fully enclosed after deck and fed by two 15-gallon gasoline tanks.

ROCHESTER BOAT CORP.
Rochester, New York **10 Charlotte Sts.**
Territory Franchises Open to Dealers

You Can't Sink

WHEN YOU WEAR

KAPO COAST GUARD VESTS

Style No. 7-C

4 times more buoyant, 10 times more comfortable than cork

Your choice. O. D. or white. Easily adjustable. Comfortable. Absolute life protection for Speed Boating, Yacht Racing, Canoeing, etc. If dealer can't supply, order Style 7-C direct and state chest measure.

24-30	Chest $6.00	38-44	Chest $9.00
32-36	Chest 8.50	46-50	Chest 10.00

Remember, these are Life Preservers
Beware of Imitations
Look for the original Kapo "Ceibasilk" Label
There are many imitations
Insist on the genuine—made only by

KAPO PRODUCTS CO.
Dept. M, 76-80 Traverse St., Boston, Mass.

ALBANY-NEW YORK RACE
A BALUBRICOTE VICTORY!

90% of the Boats Racing Used

BALUBRICOTE

THE BOTTOM COAT for FASTER BOATS
Cuts Down Water Resistance! Easy to Apply and Good for a Season!
Ask your Dealer for BALUBRICOTE, or Order Direct from Makers—Quart, $2.00
BAHL CHEMICAL CO., 194 Elm St., Fall River, Mass.

IT STANDS THE GAFF!

Philippine INDOAKO Wood

Is used for planking by the

CENTURY BOAT COMPANY

Because

It *holds the fastenings* under strain.
Is *light in weight* and *strong.*

With over four million feet in pile on our yards here, we can assure you of clear stock, moderate prices and prompt shipments.

No order too small—none too large.

INDIANA QUARTERED OAK CO.
222 East Ave. . . . Long Island City, N. Y.

COMBINATION POST LIGHT AND FLAG POLE SOCKET

For Class I and Outboard Boats
The sturdy one-piece construction of this light makes it ideal as a towing post. Made in one-piece casting; brass or aluminum highly polished.

T. & B. Type **B. & B. Type**

We save you money. Write for catalog showing prices and be convinced. We specialize in repairing propellers.

Racing Propellers for Outboards

BRYANT & BERRY PROPELLERS
1202 LILLIBRIDGE STREET DETROIT, MICH.

Outboard Motor Boat Book

MoToR BoatinG's Ideal Series—Volume X

Plans and Instructions for Building Over 30 Outboard Boats of Various Types

THE scope of the craft, plans, specifications and building instructions given in this volume, is very broad. Everything is included from the smallest rowing dinghy suitable for a Class A Outboard Motor up to the fastest Class C racing hydroplanes. Plans of some of the outboard racing boats which have established records are included. All of the boats are easy for the amateur or novice to build. The plans and designs are particularly clear and easy to understand and no previous knowledge of boat building is necessary to turn out a successful boat. You should not fail to have a copy of this book.

Price, $3.00 **Mail Your Order Today**

Foreign Postage, 50 cents extra

MoToR BoatinG
57TH STREET AT 8TH AVENUE, NEW YORK CITY, N. Y.

Send for circular describing all of MoToR BoatinG's books on motor boat building, operation and navigation

Advertising index will be found on 3rd last page

FAIRCHILD

FOR SPEED!

The 1929 FAIRCHILD AERO for those who must have extreme speed and a boat that will outlast the average.

One of Six Superlative Fairchilds

RACERS—RUNABOUTS—CRUISERS

A catalog with photographs and blueprints of all models is now ready. Mailed free on request.

Dealer territory is still available in some sections.

Time payments may be arranged through authorized dealers.

FAIRCHILD BOATS, INC.

37-41 West 43rd Street, New York City

Telephone: Murray Hill 5850

GET YOUR

STEP-SLED

NOW

PILOT
WINS RACES · $210.00

STANDARD
FOR PLEASURE AND FISHING, $233.00

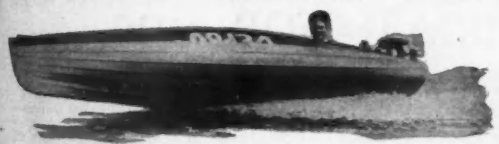
MASTER
FINEST RUNABOUT AFLOAT, $320.00

ALL AFRICAN MAHOGANY COPPER AND BRASS FASTENED
ASK YOUR DEALER

PATE-PARKES MANUFACTURING COMPANY

"Builders of fine outboard hulls"

NASHVILLE, TENNESSEE



Three Star Boat

Safe, Serviceable and Speedy
The Sensation of the Season

PIGEON HOLLOW SPAR CO.

131 Coleridge Street East Boston, Mass.

Double Production for 1929
Enables Us to Offer the Famous

ASHBRIDGE FLYERS

Class B or Class C

$150.00

Class D—$175.00

F.O.B. Wilmington, Cal.

Perfect Streamlining

Lighter Weight—Wider and Faster

First Race of the Season on the Pacific Coast
WON BY OUR NEW RACER
San Francisco Bay, March 24th

Balboa—Southern California Outboard Association—April 7
Brownie—1929 Flyer, driven by C. E. Martin wins five Firsts with Class B Engine

These Hulls are sold Knock-Down for $58.50, or PARTIALLY ASSEMBLED, as chines and side ribs fastened to freeboards, transom and step completely made, $72.50. Mahogany sides and bottom, Spruce frames. California's latest wood deck.

Class B,	*44" x 12'*	*Weight 72 lbs.*
Class C,	*47" x 12'*	*Weight 78 lbs.*
Class D,	*50" x 14'*	*Weight 95 lbs.*

Smiling Dan IV—151 Class hulls, knock-down—$188.00
Finished Hull, $488.00. Weight 298 lbs.

Ashbridge DeLuxe Outboard Runabout, 16' and 18'.

Seaworthy, double cockpit, double concave racing bottom, stepless. Chrome plated fittings, remote throttle control on steering wheel. Weight 325 lbs.—$379.00.

ASHBRIDGE BOAT FACTORY

WILMINGTON, CALIF.

Sole Distributors

"Our trade extends around the WORLD"

Airships 16-ft. Mahogany Speed Runabout

PHILIPPINE MAHOGANY

Supplied by

BLACK & YATES, Inc.

is used for planking by the builders of

AIRSHIPS

Outboard Boats

We are in a position to supply other builders specially selected sizes of *clear Philippine Mahogany* in widths and lengths required.

Over 2,000,000 feet of dry lumber at our Brooklyn, N. Y., yard for immediate delivery.

BLACK & YATES, Inc.

Paramount Building, Times Square, New York

Tel. Longacre 1345

CAPE COD BOATS

Before purchasing send for our complete catalogue and low price

CAPE COD BABY KNOCKABOUT

This model is brought out to meet the demand of various yacht clubs and individuals, a number of yacht clubs having adopted this boat as a standard racing class. Some clubs have fleet of 30 boats. All Cape Cod boats are standardized built.

ROWBOATS

10, 12, 14 feet long. Of various models. Strong, well-built and safe.

POWER DORIES AND LAUNCHES

20 foot Motor Dories. Safest sea-going family boat built.

20 foot Runabout. Four cycle, four cylinder engine. A beautiful job.

OUTBOARD MOTORBOATS

Various models for high speed, general utility and sea-going.

Boston Showroom at New England Marine Sales Co. 882 Commonwealth Avenue

Cape Cod Ship Building Corporation

Showroom, Main Office and Works, Wareham, Mass.
Export Office, 25 Broadway, New York City
Branch Office, 18 Tremont Street, Boston, Mass.

The

NEW PERKO LINE

for OUTBOARDS

The famous **Perko Products** include a complete line of equipment for outboard motor boats.

OUTBOARD HARDWARE, OUTBOARD SEARCHLIGHTS, OUTBOARD RUNNING LIGHTS, FLAG POLES, POLE LIGHTS, ETC.

Equip your boat with Perko Products

Write for Booklet 48

Let "PERKO" be your guarantee

Perkins Marine Lamp Co.
1942 Pitkin Ave., Brooklyn, N.Y.

Fig. 512

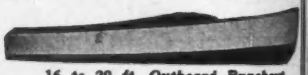
Fig. 358

Fig. 489

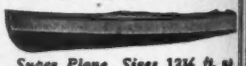
KIRK'S

OUTBOARD SPEED AND COMMERCIAL *BOATS*

You will find these boats extremely satisfactory either for racing or pleasure boating. Speeds up to 26 m.p.h., depending on motor used. Sturdy construction. Absolutely seaworthy and safe. Get our prices before you buy.



16 to 20 ft. Outboard Runabout



Super Plane, Sizes 12½ ft. up

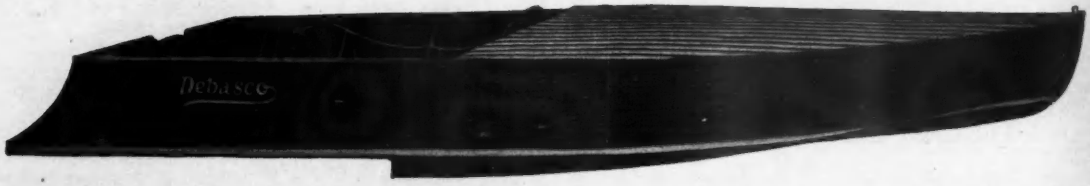
18 ft. Outboard Cruiser

Kirk's standardized outboard cabin cruisers, 18 to 22 ft., offer exceptional values. Write for particulars.

Builders of cruisers of any size

KIRK'S BOAT AND ENGINE WORKS - Belhaven, N. C.

WATCH "DEBASCO" BOATS FOR 1929



The Boat that performs marvelously and with all the speed you want. A challenge to speed enthusiasts who are determined to win. The finest product of the builders' art and built to last.

African Mahogany. Brass rod braces. Length 12 ft. width 51 in. Weight 145 lbs.

DELAWARE BAY SHIPBUILDING CO., Inc., Custom Yacht Building, Leesburg, N.J.

Advertising index will be found on 3rd last page

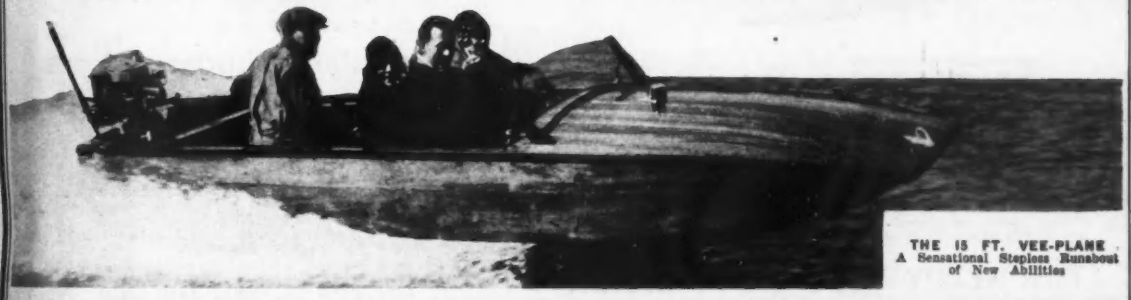
—pride of ownership

always comes with a HOOTON—for these husky performers are *distinctive;* they set the performance standards of the year; and those who drive them actually *feel* the thrill of owning A PROVEN LEADER!

THE 11½ FT. WILDCAT BIG MOTOR RACER
The FASTEST and best handling HOOTON ever built. There's a reputation behind the HOOTONS—and this boat BEATS it!

THE 13½ FT. SAFETY-PLANE STEP RUNABOUT
SPEED up to forty-five if desired; CAPACITY for four; and SAFETY for carefree, happy hours of driving. ASK YOUR DEALER!

GORDON B. HOOTON 505 GRANDVILLE AV. GRAND RAPIDS, MICH.



THE 15 FT. VEE-PLANE
A Sensational Stepless Runabout of New Abilities

25 miles an hour with four passengers. All mahogany. 17 ft. "V" Bottom Runabout. $375. Send for our beautiful catalog of Inboard and Outboard Runabouts.

DUNPHY BOATS

DUNPHY BOAT MFG. CO. Dept. MBG-5 Eau Claire, Wisc.

The Magic Boat

$165
F.O.B. Factory

Hemming Larsen, the magician of cost outdoors, has harnessed the devastating speed and strength of a tropical hurricane in the famous Typhoon. It is a 13'6" racer of finest construction. A thrilling performer and rugged enough to withstand the severe punishment of outboard racing. Priced at $165.00, the Typhoon is the outstanding small boat value on the market.

Another Magical Achievement—The "TRADE WIND"
A 15'6" double cockpit family sea skiff runabout. It combines the dependability—comfort and dignity of the Trade Winds with the remarkable speed of 25 miles per hour. Priced at $215.00 it offers more boating advantages than any other craft anywhere near this price.

Hemming Larsen Boat Works, Marinette, Wis.

Safe Boats *that are FAST!*

For 1929 you are certain of the same wonderful boat performance and dependable construction which have made

LYMAN CLINKER-BUILT OUTBOARDS

the outstanding boats of the past two seasons. Improvements in hull design and interior arrangement are in keeping with our policy of progressive outboard development.

9- 11- 13- and 15-Ft. Sizes for
FAST TENDER and FAMILY SERVICE

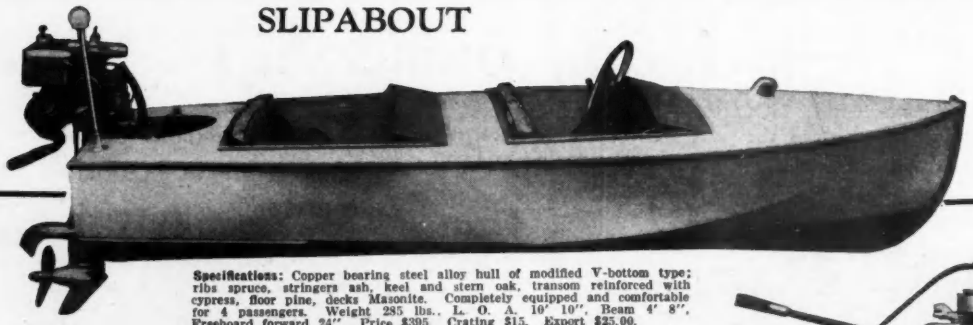
LYMAN BOAT WORKS, Foot of First St., SANDUSKY, OHIO
Formerly at Cleveland

STANNUS
SPECIAL
Speed Wheels
for
OUTBOARDS

are consistently establishing new records. Make your outfit a winner by using a Stannus Wheel. Price: $10.00

STANNUS PROPELLER CO.
3401 Illinois St., Detroit, Mich.
Every genuine wheel is stamped with the name Stannus

SLIPABOUT



Specifications: Copper bearing steel alloy hull of modified V-bottom type; ribs spruce, stringers ash, keel and stern oak, transom reinforced with cypress, floor pine, decks Masonite. Completely equipped and comfortable for 4 passengers. Weight 285 lbs.. L. O. A. 10' 10", Beam 4' 8", Freeboard forward 24". Price $395. Crating $15. Export $25.00.

Standard Slipper

Specifications: Alloy aluminum hull, single step hydro. Folding fin (A. B. C. patent). Deck Masonite. Ribs spruce. Transom reinforced with cypress. Pine flooring. Natural finish except for use in salt water, when an extra charge of $12.00 is made for painting.

Name	Key Letter	Price	Wt. Lbs.	L.O.A.	Beam	Transom Height
Standard Slipper.....	Model ST	$195.00	125	11'0"	48"	Standard

Crating—Domestic, $12.00; Export, $19.00. Special for Standard Slipper.

ENJOY REAL "SLIPPER" COMFORT

Real comfort in both the family Slipabout and the Standard Slipper Speedster. Special metal alloy combines extreme lightweight with safety, speed and durability. Slippers can't warp, shrink, leak nor absorb water. "Get into your Slippers and be comfortable."

Convincing Evidence.—From a New York Naval Architect—My son can't find a better boat than the Slipabout.
From Brooklyn.—My Standard Slipper is entirely satisfactory. Have entered the Albany to New York Marathon.

Write for descriptive circular of complete Slipper Line

THE ALLOY BOAT CORPORATION — **190 Elk Street, Buffalo, N. Y.**

CUTE-CRAFT

"Popularized by their performance"

The fast, safe and dependable hull that has established a greater number of records than any one or more outboards in the field.

CUTE CRAFT Incorporated
154 No. Main Street — **Fall River, Mass.**

NOW READY

Outboard Rules for 1929

and

How to Run an Outboard Regatta

Price 25 cents

MoToR BoatinG

959—8th Avenue, N. Y. City

For YACHTING, MOTOR BOATING and OUT-BOARDS

ONE-PIECE Waterproof and Windproof of double texture cloth with rubber vulcanized in between. Famous Rust-proof Hookless Talon Fastener at front and sides of legs. Waterproof elastic at wrists, ankles and waist. Small spat to cover shoe. Easily put on—weighs but 36 ounces. Detachable Hood.

Khaki Color—$12.50 — **White Color—$16.50**

"UTE"

The All-Weather Utility Suit

If your dealer does not already stock UTE, send us your check and measurements and we will ship you UTE postpaid.

Sizes—Small, Medium and Large. Extra Large 10% extra.

(Patent Pending)

UTILITY GARMENT CORP. (Dept. M.B.)
136 So. 9th Street — **Philadelphia, Pa.**

DISTRIBUTORS and DEALERS: Write for full details of this new garment.

NON-SINKABLE — **NON-CAPSIZABLE**

SPEEDY AND ABSOLUTELY SAFE

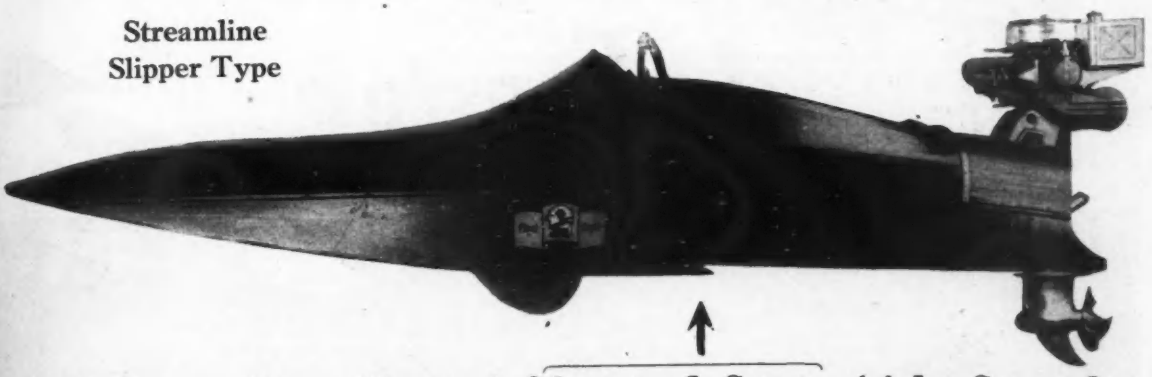
Air-tight bulkhead makes it non-sinkable. Patented design makes it non-capsizable. All metal, frameless construction, electric welded. 30 M.P.H. with four passengers. 35 M.P.H. with one passenger. Write for literature and price.

AMERICAN STEEL BOAT CORP.
99 STATE STREET — **BOSTON, MASS.**

Advertising index will be found on 3rd last page

FLEET CRAFT

Streamline
Slipper Type



Unique Ventilated Slotted Step Aids Speed

Class B Fleet Craft illustrated is 10'6" in length and has a beam of 40 inches. Weight, 110 pounds. Price complete with steering gear $225 f.o.b.

Class C Fleet Craft is 11'3" in length and has a beam of 44 inches. Weight, 120 pounds. Price complete with steering gear $225 f.o.b.

Write today for full information

Dealer and Distributor Franchises Open in United States

AMERICAN BOAT & MOTOR SALES CO.

3929 BROADWAY KANSAS CITY, MO.

HARTFORD
REG. U.S. PAT. OFF.
Sturdy Twin

The Ideal Combination of Speed, Dependability and Light Weight

Write for folder describing this new Sturdy Twin—the latest thing in superior outboard motor design.

The Gray & Prior Machine Company

BUILDERS OF HIGH GRADE MARINE MOTORS FOR OVER A QUARTER OF A CENTURY
194 Suffield Street, Hartford, Connecticut
Branch at 117 Commercial Street, Portland, Maine

GET YOUR BOSSERT PIRATE NOW!

WARM weather is here—boating season is beginning to get under way—stay away from the dust and din and don'ts of the traffic jammed auto highways—get your Bossert Pirate now and begin having real sport this summer.

Bossert Pirates are built at the Bossert 32-acre plant and are backed by the Bossert half-century reputation.

BOSSERT PIRATES

Better Boats for Less Money!

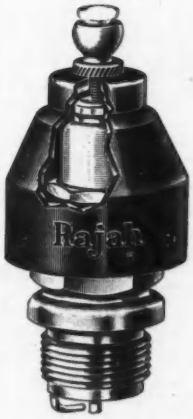
Bossert Pirate, Jr. $330
Bossert Pirate Kid $265
Bossert Pirate Kid Knockdown $98

For further particulars either see your local dealer or write us.

LOUIS BOSSERT & SONS, Inc.

1345 GRAND STREET BROOKLYN, N. Y.

Rajah Spark Plug HOOD Prevents Shorting by Water or Spray!



The new Rajah Bakelite HOOD will prevent water and spray from shorting your spark plugs.

Fits all makes of spark plugs

Completely shields porcelain thereby lessening danger of breakage. Easy to install—attached or removed in a second.

Especially made for engines on outboards and motor boats.

RAJAH SAFETY NIPPLES

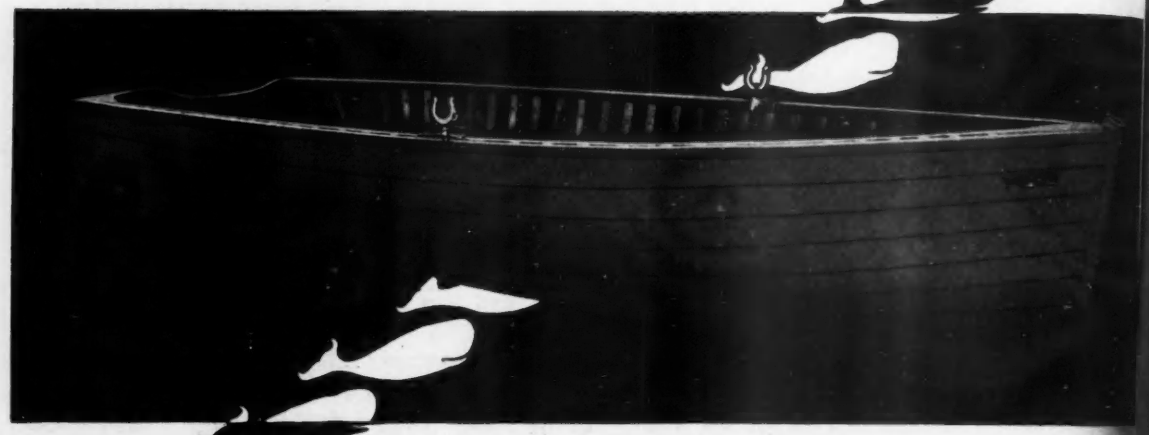
stretch over the terminal and insulator of any plug, making a water-tight job. Also fits new Bakelite HOOD.

Order today from your dealer or send direct to us

The Rajah Company, Bloomfield, N. J.

BABY WHALE

Speed Tender



for the family or for the finest yacht

A BABY WHALE for Every Purpose

11 ft. BABY WHALE *Round Bottom Mahogany Lap Strake Tender —Seats Six*

12 ft. BABY WHALE *Mahogany Step Plane—Seats 2*

13 ft. BABY WHALE *Round Bottom Mahogany Lap Strake Tender —Seats 7*

14 ft. BABY WHALE *Mahogany Step Plane—Seats 2*

14 ft. BABY WHALE *Mahogany Semi-Runabout Type Step Plane—Seats 3*

15 ft. THE WHALER *Round Bottom Mahogany Lap Strake Family Runabout—Seats 9*

THE eleven-foot Baby Whale Speed Tender, the smallest of the Baby Whales family, is built with the same faithful adherence to the Kelley policy of producing the finest and most seaworthy craft for size, and at the price that honestly gives the greatest value per dollar.

The Baby Whale Speed Tender is built of mahogany and like the 15 ft. Whaler, is lap-strake constructed and copper riveted. Equipment includes bronze hoisting rings, rowlocks, and sockets and removable floor boards. Seating six comfortably, it makes an ideal family boat and serves admirably as a yacht tender. It performs superbly with all makes of outboard motors.

For the speed demon and racing enthusiast Baby Whale twelve and fourteen-foot step planes are the acknowledged first choice. They established SIX WORLD'S RECORDS in 1928 and were first to cross the finish line at innumerable races all over the country.

New York Distributors:
H. Mikkelsen
44 Warren Street
New York, N. Y.

Write for Literature

New England Distributors:
Walter H. Moreton Corp.
1043 Commonwealth Avenue
Boston, Mass.

D. N. KELLEY & SON, INC. — The Famous Whaling City BOATS — **FAIRHAVEN, MASSACHUSETTS**

Advertising index will be found on 3rd last page

LACONIA

Runabouts.

For Novices and Post-Graduates

LACONIA runabouts are designed primarily for novices. They are safe and sensible boats that even youngsters can operate. Yet in craftsmanship, quality and performance Laconias are a revelation to the most experienced boating enthusiast.

You have not enjoyed outboard motoring at its best until you drive a Laconia. It is the boat for the novice as well as the post-graduate.

An Enthusiastic LACONIA Owner Says:

"My Laconia Sportster arrived and I immediately took it to Bay Head, N. J. and installed a 25 H.P. Johnson Giant Twin racing outboard motor. Although my experience with boats extends over a period of years, I have never been so satisfied with a boat as I am with this one. It planes perfectly at any speed, clearly proving that the shape and construction of the boat is what it should be.

Am also greatly impressed with the finish and equipment, and your company is to be congratulated for building such a quality boat, for all that have seen it agree that it is the classiest and best built boat."

Edward H. Goodwin
Goodwin Motor Corp.
Plainfield, N. J.

The Laconia SportSter is a trim, well poised and perfectly balanced sixteen foot family runabout.

A LACONIA Dealer Writes:

"Being a boat builder myself and coming from a family of boat builders seventy-five years old, I wish to say that you certainly have a wonderfully built boat in every way. We looked over several runabouts before finally deciding on LACONIA as the best all round boat to meet the demand."

Name furnished on request

In past announcements we have told you much about Laconia runabouts. Our claims have been modest compared to the many ardent letters received from Laconia owners and dealers, two of which are reprinted on this page.

Let us repeat that Laconia Runabouts are delivered fully equipped with steering wheel, windshield, upholstery, electric running lights, deck hardware and fire extinguisher. In fact everything for your comfort and safety, including essentials required by law. No extras to buy. You receive your boat ready for use. You may purchase Laconia runabouts on part payment plan from authorized dealers. Write for catalog and name of nearest dealer.

THREE MODELS

The SPECIAL	*The* SPORTSTER	*The SPEEDSTER*
Sixteen-Foot Double Cockpit Runabout	Sixteen-Foot Double Cockpit Runabout	A 12'4" Double Cockpit Hydroplane,
$490.00	$369.00	$199.00

Prices, F.O.B. Laconia, New Hampshire

DEALER OPPORTUNITY: **Several desirable territories are available for aggressive dealers of high calibre. Write or wire today for particulars.**

LACONIA CAR COMPANY

LACONIA **NEW HAMPSHIRE**

Century Cyclone

Smashes Records

Wins Col. Green Trophy

and

Pan American Championship

CENTURY Cyclone inaugurates the 1929 racing season with startling performance. At Mt. Dora, Florida, Malcolm Pope at the wheel of Flying Rug, a Century Cyclone, made a new mark of 45.05 M.P.H. in Class D. At the Miami Beach Regatta Lookinback Kid, also driven by Malcolm Pope, captured the Col. Green Trophy in competition with twenty-one other boats. And finally at the Havana Regatta Century Cyclone is crowned the Pan-American Champion.

Such demonstrated merit removes all uncertainty from the purchase of a racing hull; it makes your choice of a Century Cyclone a sure investment in flashing, winning speed.

CENTURY BOATS

Other fine sister craft to the Century Cyclone are the Century Seadan, Century Sea King, Century Kid, Century Traveler and Century Traveler Jr. Full information on these fine craft is available at your request.

Details and specifications on the Century Cyclone, the fastest racing craft made, sent upon request

CENTURY BOAT COMPANY

MANISTEE, MICHIGAN

130 Start in Albany Race

(*Continued from page* 194)

Ponque; Baby Statie, H. G. Schmidt; Miss Mystery, L. F. Davids; Nobody's Bizness, Ben Coler; Skiboat, S. S. Breese; Nonsense 1, H. Lawson; Miss Albany, Gordon Jacob; Spirit of Greenpond, Edw. S. Conord; Seaswift, Burt Mackenzie; Penn Yan, R. E. Hart; Miss T. N. T., C. P. Stevens, Jr.; Blank, Herbert Spade; Miss Norwalk, John Wakeman; N-197, H. Spade; Sea Sled, D. W. Mack; Airships, G. Youngberg

Class E

Here's Me, John B. Harper; We III, E. A. Bloomingdale; Sister Helen II, A. S. Titcomb; Argl, G. G. Meserve; Hi Heels, D. Graham; V-4, R. Harrington; I'm Alone, Earl D. Widegren; Miss Cohoes, Wm. Shepard; 0-8-147, W. C. Stannard; N-238, Curtiss P. Stevens; And How III, C. H. Stoddard; N-131, A. B. Goldsmith; Uniplex, W. Frey; Baby Steelcraft, G. Raymonde; Cowboy Higgins, W. Higgins; Century Cyclone, A. R. Masterson; Century Cyclone, E. C. Fullerton; Miss Zoar, P. J. Prokopy; Miss Boston III, Tom Parker; Nemo, Jack Brockley; Press-On, J. B. R. Verplanck; Miss Peggy II, H. Dinegar; Delmar, R. E. Wagner

On the run down the river some of the racers got into difficulties and were rescued by one of Gar Wood's Black Beauty Sedan runabouts which acted as a patrol boat. Due to the fact that few larger boats are in commission so early in the season, this patrol was most welcome and helped to relieve the distress of several unfortunate racers.

NEW CRUISER PLANT SCENE OF GREAT ACTIVITY

Visitors at the Algonac factories of Chris Smith & Sons Boat Company are witnessing another notable advance in the science of boat building. Straight line production methods which have done much to establish Chris-Craft in a prominent position in the motor boat field are now being applied in the building of a much larger type of craft, i. e. the new Chris-Craft 38-ft., 30-mile-an-hour, V-bottom commuting cruiser.

A huge new building has been erected in which the cruisers are being built. Construction on this building was begun the latter part of January when the temperature was six below zero. It is 425 feet long and contains complete facilities for cruiser manufacture. At one end is a wing measuring 88x210 feet in which all of the mill work is done. Considerable time was saved through the elimination of trucking and handling, such as would be necessary if the mill work was performed in the main Chris-Craft plant.

On the floor of the cruiser assembly shop, measuring 332 feet in length by 88 feet in width, there are at the present time 21 Chris-Craft cruisers in various stages of production. Beginning at one end with the hull framing and continuing step by step to the other where finishing, upholstering and other related operations are carried on, the various manufacturing processes present an interesting sight. Numerous labor-saving devices, including overhead conveyors, facilitate production and reduce manufacturing costs to the minimum.

Current production is scheduled at one boat a week and provisions are now being made to increase the output shortly to three boats a week. Estimated total production for the current season will be in the neighborhood of 75 cruisers, a number far too small, incidentally, to accommodate the overwhelming demand that has been expressed for this newest and finest Chris-Craft, flag-ship of the 1929 Chris-Craft fleet.

NEW FIRE BOAT FOR NEW YORK

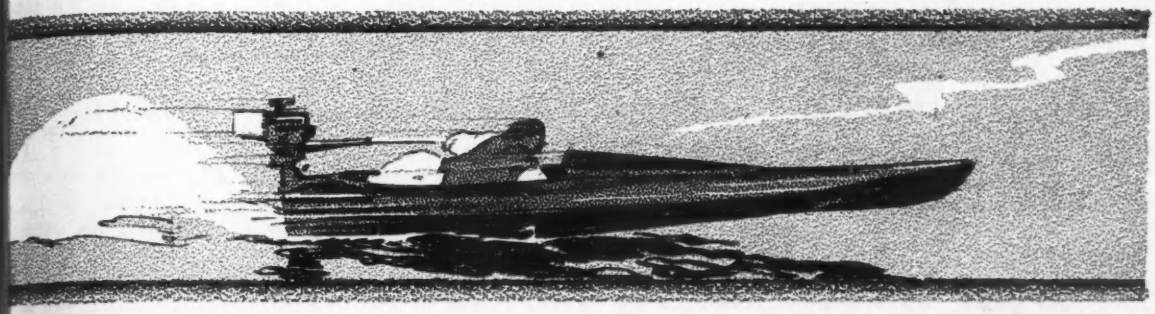
A new fire boat, capable of throwing 16,000 gallons of water per minute and constructed entirely of non-inflammable materials, will be built for New York City as a result of a grant by the Board of Estimate and Apportionment recently authorizing Fire Commissioner John J. Dorman to advertise for bids from shipbuilders. The craft, to be constructed at a cost of approximately $320,000, will be the first built for the city under specifications which demand that no wood shall be used in the superstructure or hull.

Designs of the new boat as submitted by Henry J. Gielow, Inc., naval architects with offices in New York and Detroit, specify that the craft shall be 130 feet long with a beam of 26 feet and a draught of 7½ feet.

The boat will have five main gasoline engines of 548 horsepower each which will develop a total of 2,740 horsepower transmitted to two electric motors generating 1,165 horsepower each. The motors will drive the twin screws propelling the craft at a speed of 18 miles an hour. It is specified that the engines shall be quickly reversible and that they shall have dual control for operation from either the engine room or the pilot house.

Advertising index will be found on 3rd last page

Mobiloil betters its best



Amazing results obtained in speed-boat tests with the *New Mobiloil*— especially adapted to modern high-speed engines

THE *New Mobiloil* is here! With characteristic foresight Mobiloil engineers have been working to perfect a new oil especially adapted to modern high-speed motor boat engines. Their efforts have met with remarkable success.

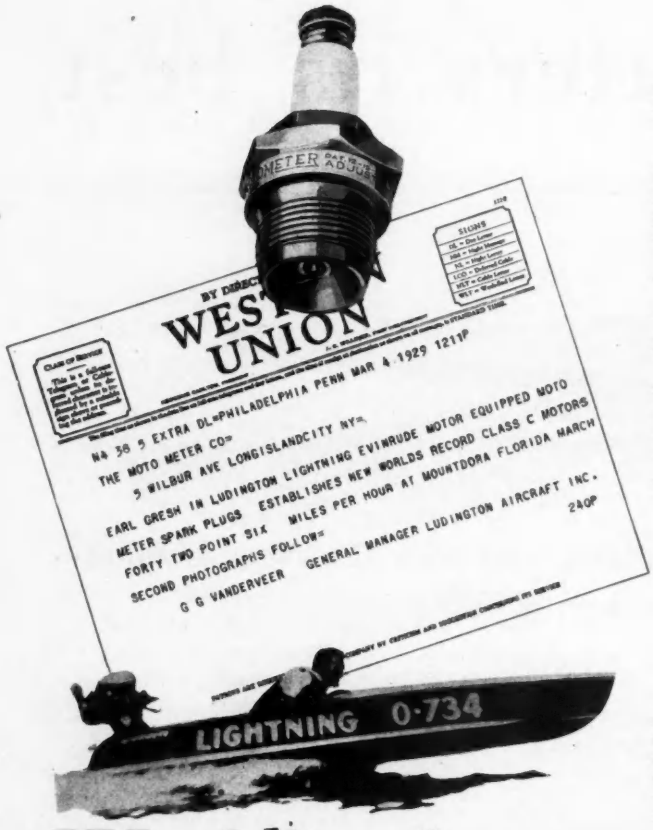
The *New Mobiloil* is not an overnight discovery, but the result of careful, unhurried, scientific analysis of the best lubricating crudes from all over the world; together with a thorough study of every type of marine engine.

Rigid speed-boat tests have repeatedly shown that the *New Mobiloil* stands up better and consumes more slowly at high-speed than other high-quality marine oils of equal body. And it is an established engineering fact that the oil which lasts longest and stands up best at high speed also lubricates best at ANY speed.

Now in the first races of the 1929 season at the Mid-winter Regatta on Lake Elsinore, the *New Mobiloil* took 18 out of 23 first places and established 4 new world's records. Equally startling results are being demonstrated everywhere with this new oil made especially for today's high-speed engines. VACUUM OIL COMPANY, Makers of high-quality lubricants for all types of machinery.

the New GARGOYLE

Mobiloil


METER ADJUST
WESTERN UNION
NA 38 9 EXTRA DL=PHILADELPHIA PENN MAR 4 1929 1211P
THE MOTO METER CO=
5 WILBUR AVE LONGISLANDCITY NY=
EARL GRESH IN LUDINGTON LIGHTNING EVINRUDE MOTOR EQUIPPED MOTO
METER SPARK PLUGS ESTABLISHES NEW WORLDS RECORD CLASS C MOTORS
FORTY TWO POINT SIX MILES PER HOUR AT MOUNTDORA FLORIDA MARCH
SECOND PHOTOGRAPHS FOLLOW=
G G VANDERVEER GENERAL MANAGER LUDINGTON AIRCRAFT INC.
240P
LIGHTNING 0-734

World's fastest outboard record in Class "C"

Time: March 2nd, 1929
Place: Mount Dora, Florida
Speed: 42.6 miles per hour
Boat: Ludington Lightning 12 ft. hydroplane
Motor: Class C Evinrude Speeditwin
Spark Plugs: MotoMeter Self-Adjusting
Record certified by Mississippi Power Boat Assn.

"Your Boat Deserves Them Too"

THE MOTOMETER COMPANY, INC.
5 Wilbur Ave., Long Island City, N. Y.

The MotoMeter Co. of Canada, Ltd. Hamilton, Ont.

MOTOMETER
SELF-ADJUSTING
SPARK PLUG
Chromium Plated to Resist Rust

A New Class D Record

(*Continued from page 208*)

gatta were scheduled to begin at 9 a. m. on Friday, March 22, the day following the competitive events and continue throughout the day.

Indian Creek where the trials were scheduled to be held was quite rough on the morning of the 22nd and about 10 a. m. the Committee announced that it would be present on the course all day prepared to conduct trials of any boats which cared to run. Late that afternoon the Committee announced that due to the roughness of the water, the Committee would be present all the following day (Saturday) beginning at 9 a. m., prepared to conduct trials for any boats that cared to make them.

On Saturday, March 23, the water on Indian Creek was again quite rough. The Commitee again announced that it would be present all day until dark to conduct any trials anyone cared to make.

Slightly after noon on Saturday, March 23, the water smoothed down somewhat and the Committee advised contestants that those who wished to have their boats timed had better make an attempt. No mention was made at that time that the Trials would be postponed until the following day, Sunday.

Previous to 7 p. m. on Saturday, the following boats made trials:

Tar Baby—J. T. Herbst.
Hooh—John McQuaide.
Wildcat—F. E. Johnson.
Frasers Bullet—H. Fraser.
Young America—Gar Wood Jr.
King Bee—J. T. Herbst.
All Cat—John McQuaide.
Wilkie's Baby—J. E. Wilkinson.
Miss America VII—Gar Wood.

At about 7 p. m. on Saturday the Committee announced that it would be present the following day, Sunday the 24th at 9 a. m. to conduct trials of anyone who desired them. The Committee arrived at Indian Creek at about 9 a. m. Several contestants also appeared about the same time and the Committee prepared to conduct the trials. However, before it was possible to give the first boat a trial some of the city authorities of Miami Beach arrived on the race course and advised the Committee that due to complaints received from the residents along the Creek of the excessive noise of the unmuffled exhausts of the outboards that it would not be possible to conduct trials on Sunday. This made necessary for the Committee to advise the Contestants that the trials were called off. However, this advice was not given to the contestants until Sunday morning and after the contestants had had two full days in which to make the trials if they so desired.

As noted above, nine contestants availed themselves of the privilege to run and the Class D record made by Fraser's Bullet driven by Harrison Fraser was established on Saturday as previous to any calling off of the events.

The Committee, without exception, was present for two full days and the Timer did not leave the course on either of the days between the hours of 9 a. m. and 7 p. m. which gave sufficient time to those who desired to run, to make an attempt. Furthermore, the Committee was careful not to announce until 7 p. m. of each day that the Trials would be conducted on the day following.

Several days after the Miami Beach Time Trials, The Secretary Florida Power Boat Association made a request to conduct Trials at Hollywood, Florida, which request was granted. Odis Ford an Assistant Timer of the American Power Boat Association was present with his electrical timing machine. Guy Ashley, Official Outboard Referee was in charge of the Hollywood Trials. The course was duly surveyed, checked and re-checked by an Official Surveyor. However, as these Trials were conducted at Hollywood and not at Miami Beach they have no relation whatsoever to the Miami Beach Trials.

NEWARK PAPER WILL RUN BOATING SECTION

Still another indication of the growing interest in boating is the establishment by the Newark Evening News, Newark, N. J. of a boating section every Saturday, beginning March 30. This regular department is the sequel to a two-page boating section issued during the New York Motor Boat Show last January.

The News plans to cover intensively the widespread boating activities, both power and sail, along New Jersey's shore and on its lakes and rivers. There will be regular news notes from the more important clubs and special features for the cruising yachtsman and the outboard user, as well as the customary regatta reports and general boating news. The boating editor is Thomas W. Cushing.

Advertising index will be found on 3rd last page

Speed—smartness—snap—and marvelous durability are offered in the Steel King at unbelievably low cost. You will want to see this new outboard boat. Send for details.

EVERYTHING *you want in an outboard boat the* MULLINS STEEL KING *has!*

Speed that takes you streaking along at 30 an hour. Limousine comfort for eight. Lifeboat safety in any sea—a big air chamber under the bow makes the Steel King unsinkable. A puncture-proof hull of rust-resisting Armco Iron that can't warp, crack, dry out or leak like a wood boat. And all the grace and beauty of expensive craft at outboard cost. Best of all, you don't have to be a boat-builder to own the Steel King. She's always shipshape and ready to go. And she'll stay that way for years, with no other care than a coat of paint.

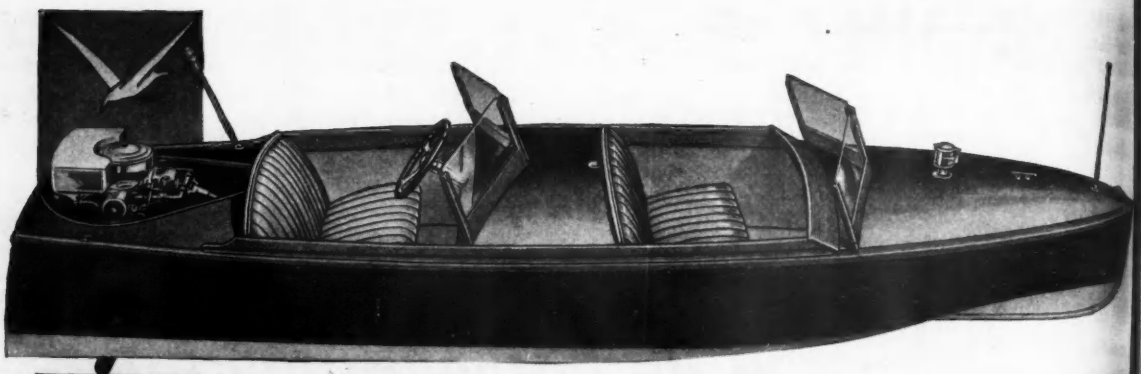
Clamp on the heaviest and most powerful motor . . . the Steel King's built to carry it. Open it wide . . . there's no danger of shaking anything loose. Jam the wheel hard over . . . the Steel King turns in its own length without side slipping . . . the corrugated bottom takes care of that. When you're through leave it in the water . . . on the beach . . . anywhere in any weather . . . the Steel King is made of Armco Ingot Iron . . . you can't hurt it. You can store it in a boathouse . . . but you don't *have* to.

If that's the kind of a boat you want . . . and most men do . . . write for our interesting folder giving full details about this best of all outboard boats.

MULLINS MANUFACTURING CORPORATION
506 Depot Street, Salem, Ohio

Mullins Manufacturing Corp.,
506 Depot St., Salem, Ohio
You interest me. Please send full information about your 1929 Steel Boats.
Name.....
Address.....
City.....State.....

MULLINS
STEEL BOATS



PRACTICABILITY

The development of a continuous four year experimental program: the good features of the conventional vee, the round bilge and the inverted vee bottom types—with none of their short-comings: rigid—dry—free from pound—non-capsizable—PENN YAN.

DEEP VEE BOTTO

The ONLY safe and satisfactory location until the arrival of the electric started outboard motor. Starter, needle valve, and timer, within comfortable reach of the driver—no need to carry an "engineer"—PENN YAN.

STERN SEAT CONTR

All necessary attachments for any motor—nothing for the purchaser to "dope out" and rig up to fit his particular engine. Only on a PENN YAN do you get more than a "rope and some pulleys."

COMPLETE EQUIPME

Outboard engines require AIR—for carburetor cooling and removal of fumes. They must also be accessible while running for adjustments of controls. Boxing them in has not yet proved practical—PENN YAN.

OPEN MOTOR WE

Occupants enter and leave a beached boat over the decks, by swinging these aside. Climbing over rigid windshields is awkward and dangerous—PENN YAN.

HINGED WINDSHIEL

The tanks on large motors have capacity for less than one hour. Fifteen gallon electric system quadruples this range. Clean—safe—automatic—PENN YAN.

AUXILIARY GAS SYST

No "launch" effects with exposed construction and mechanism. "Fine Car" smartness of trim and appointment throughout—PENN YAN.

AUTOMOBILE FINI

Designed, built, and tested by one organization—which devotes its entire time and attention to the boat industry. Subjected to the acid test of daily driving on rough water by men whose experience fits them to judge the PRACTICABILITY of each feature—PENN YAN.

TESTED PERFORMANC

Fine creations are always imitated. Penn Yan originated and perfected the composite leakless construction. Through lack of understanding of the technique involved, the several copies, while similar in general appearance, have been proved failures in action. Be sure it is a genuine PENN YAN.

GENUINE VS IMITATIO

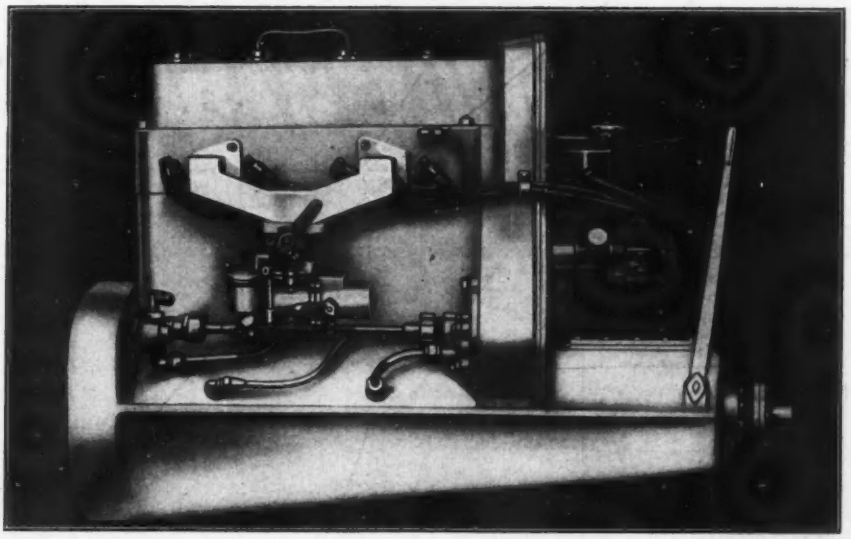
PENN YAN BOAT CO.

15 WATER STREET

PENN YAN, - N. Y.

Advertising index will be found on 3rd last page

Designed and Built to Fill a Great Need



VAN BLERCK JUNIOR

The Portable Inboard Motor
for
Outboard Boats, Tenders and Runabouts

25 H. P. *at* 3000 R. P. M.

FOUR CYLINDERS—FOUR CYCLE—WEIGHT 100 POUNDS

PRICE, COMPLETE WITH ELECTRIC STARTER AND REVERSE GEAR

$390.00

Factory is now in full production and deliveries are being made on receipt of orders

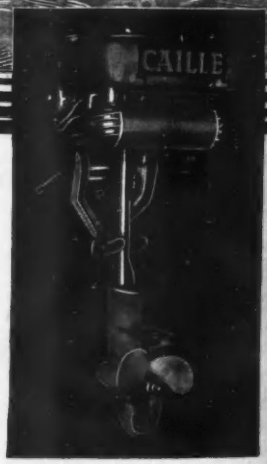
Write for name of nearest dealer

VAN BLERCK MOTORS, INC.
Builders of VAN BLERCK and *CONTINENTAL*-VAN BLERCK Marine Motors
RED BANK, NEW JERSEY

CAILLE WINS
1st—2nd—3rd
In All Class "B" Events at the Miami, Florida, Regatta, the Season's Outstanding Event, March 20th and 21st.

Commanders of the Waterways

JUNIOR	MASTER	COMMODORE	CHAMPION	ADMIRAL	MONARCH
5-speed Twin	*5-speed Twin*	*Class "B"*	*Class "B" Racer*	*Class "C"*	*Class "C" Racer*



Power! Performance! Dependability! . . . are the Reasons Why

CAILLE MOTORS

are Winning Greater Favor Everywhere

More and more evidence comes pouring in on the amazing power, stamina and dependability of Caille motors—already conceded the outstanding performers for 1929. Backed by fifteen years of knowing how, Caille deliberately set out to build a line of motors which would set a brand new standard for the industry. And Caille has accomplished its purpose. Follow the news of outboard motordom and you will need no further guidance to indicate which outboard motor you should choose. It makes no difference for what purpose you wish such a motor. Whether for family recreation, fishing or racing, Caille has the right motor to fit your needs and your purse. You should have a Caille.

ADMIRAL

Class "C" 18 H. P. For use on small cruisers, launches or commercial boats. Will drive boat with four to six people 20 to 25 M.P.H. One of the great Caille models for every outboard need.

A Guarantee Bond goes with Every Caille Motor

Caille Motor Co., 6214 Second Blvd., Detroit, Mich., U.S.A.

Distributors and Dealers throughout the United States

Canadian Distributors: Canadian Fairbanks-Morse Co., Ltd., Montreal, Quebec

Export Department: 116 Broad Street, New York City

Advertising index will be found on 3rd last page

SARASOTA YACHT CLUB REGATTA

March 8-9, 1929

Class B Outboards, 3 Heats, 4 Miles Each

Boat	Owner	Heats 1st	Heats 2nd	Heats 3rd	Total Points	Position
Hava Tampa	C. Maloon	7:53	flagged	7:72	986	2
Orange Blossom	G. Atwood	7:46	8:22	8:09	1022	1
Fraser's Bullet	H. M. Fraser	8:24	10:01	D.N.S.	580	5
Gulfport	City of Gulfport	8:30	D.N.F.	D.N.S.	289	7
Hava Tampa IV	C. Maloon	9:00	8:47	8:19	834	4
Florida	G. G. Jones	9:15	8:25.6	D.N.F.	549	6
Half Pint	J. Maypole	9:16	8:15.4	8:14	920	3
Bullet	D. Upsall	9:58	D.N.F.	D.N.S.	189	8

151s Limited, 2 Heats, 6 Miles Each

Miss California	D. Loynes	7:19	7:21.4	1
Miss Ricochet	E. Luckenback	8:38	D.N.S.	
Smiling Dan IV	D. Loynes	7:27	7:34.4	2
Miss Rioco	R. Snoddy	7:32	7:48.8	3
Baby Tarpon	R. Ringling	8:38	D.N.F.	

Express Cruisers, 1 Heat, 4 Miles

Bilma, Jr.	W. G. Selby	11:37.2	1
Alert	R. Ringling	12:14	2
Knox T	J. R. Brunby	17:05	3

Stock Runabouts, Handicap, 2 Heats, 4 Miles Each

Viroling III	F. W. Roberts	16:35	16:30	3
Viroling IV	R. Ringling	7:41	7:37.4	2
King	F. Canizares	10:17	10:13	1

151s Unlimited, 2 Heats, 4 Miles Each

Miss Rioco	R. Snoddy	5:20	6:08.6	1
Sparrow	E. Johnson	5:53.8	5:44.6	2
Baby Tarpon	R. Ringling	5:59	turned over	

Grand Free for All, 1 Heat, 4 Miles

Frasers Bullet	H. M. Fraser	8:02.2		1
KW Jax	C. G. Jones	8:52		2
Half Pint	J. B. Maypole	8:57		3

Class C Outboards, 3 Heats, 4 Miles Each

Boat	Owner	Heats 1st	Heats 2nd	Heats 3rd	Total Points	Position
Hurricane	H & S Boat Co.	7:27	7:29	7:15	941	2
Bo Bo	W. G. Hewitt	7:23	8:34	flagged	710	6
Frasers Bullet	H. M. Fraser	7:29	7:26	7:26	869	4
Bullet	D. Upsall	7:32	7:24	7:25	902	3
Bobs Spencer Special	B. Atkinson	7:41	7:07	7:02	978	1
Sea Horse	Malcolm Pope	7:50	7:35	D.N.F.	421	9
K. W. Jax	G. G. Jones	8:07	7:44	D.N.F.	385	10
Wet Wash III	D. P. Towne	8:08	7:33	7:30	639	7
Half Pint	J. B. Maypole	8:42	8:16	8:18	484	8
Miss New England	F. Proctor	9:29	Upset	D.N.S.	121	11
"99"	Roy Howard	10:33	D.N.S.	D.N.S.	100	12
Lightning	Earl Gresh	D.N.S.	6:59	6:54	800	5

Free for All Outboards, 3 Heats, 4 Miles Each

Miss Lillian	J. Brockley	6:40	D.N.S.	D.N.S.	400	6
Lightning	E. Gresh	7:01	12:11	7:27	986	2
Bo Bo	W. G. Hewitt	7:12	7:32	Upset	685	5
Frasers Bullet	H. M. Fraser	7:14	7:30	7:34	1050	1
Wet Wash	D. P. Towne	7:20	Upset	D.N.S.	256	7
Bullet	D. Upsall	7:30	D.N.F.	D.N.S.	225	9
Half Pint	J. B. Maypole	9:03	10:05	9:20	767	4
K. W. Jax	G. G. Jones	Flag	8:51	9:08	844	3
Lookingback Kid	M. Pope	D.N.S.	11:07	D.N.F.	256	8

NEW TIDE DATA

Tides and Currents of Portsmouth, N. H., Harbor, a new publication just issued by the U. S. Coast and Geodetic Survey, is announced by Lieut. Comdr. R. F. Luce, in charge of the Boston office of that service at 92 State Street.

This publication, one of a series intended to cover eventually all the principal ports of this country, is intended to make available all information regarding tides and currents of Portsmouth Harbor and vicinity which has been gathered by that service, especially including the results of the special tidal and current survey made of that harbor in 1926. Similar publications for New York, Boston, Delaware Bay, and for San Francisco have already been issued.

Of special interest to yachtsmen, the present volume includes complete description of the tides and currents at various points in the harbor, together with a series of maps of the harbor, its approaches, and tributaries, showing in a clear manner, by means of current arrows, the direction and strength of the current, prevailing at numerous points through that locality.

Copies of it, as well as of those for other ports, may be obtained at Coast and Geodetic Survey offices at 92 State Street, Boston; 78 Broad Street, New York, or at Washington, D. C., San Francisco, Seattle, or New Orleans.

INCREASE IN 1928 EXPORTS OF BOATS AND ENGINES

According to a report from the Department of Commerce there has been a steady and very satisfactory gain in exports of motor boats and marine engines since the year 1922, with the exception of 1924; the value of 1928 exports was 289 per cent above the 1922 figure. In 1928, motor boats and marine engines, exclusive of Diesel and semi-Diesel engines, valued at $3,852,643 were exported—an increase of 50 per cent over similar exports in 1927.

The largest increases in 1928 are shown in the number of outboard motors and complete motor boats exported. The gain in the number of complete motor boats exported is especially satisfying in view of the fact that most motor boat hulls are built locally, and then equipped with an imported motor because of high import duties. The use of outboard motors is also increasing as their possibilities are becoming better known. European countries are not manufacturing outboard motors to as great an extent as other marine motors and the American product has acquired a good reputation. Of the 10,479 outboard motors exported in 1928, 4,299 units were shiped to European countries. German and Swedish outboard motors offer the chief competition for American makes.

Calendar of Coming Events

May 5	Lake Elsinore, California
May 29-30	Worcester, Massachusetts
May 30	Cincinnati, Ohio
May 30	Balboa, California
May 30	Norwalk, Connecticut Outboard Motor Club
May 30	Rutherford Yacht Club, New Jersey
May 30	Mays Landing, New Jersey
June 1, 2	International Motor Boat Races, Potsdam, Germany
June 15	Margate, Longport, New Jersey
June 15	Boston-New London Marathon—Outboards
June 15	Capital to Capital Cruiser Race—Olympia, Washington, to Juneau, Alaska
June 15	Mile Trials, Balboa, California
June 16	Lido Island, California
June 22	New London, Connecticut, to Gibson Island, Maryland
June 22	Finger Lakes Marathon, Geneva, New York
June 23	Bear Mountain Handicap, Cruisers, Colonial Yacht Club
June 27, 28, 29	International Motor Boat Races, London, England
June 28, 29	Philadelphia, Outboard Regatta
July 4	Westerly, Rhode Island
July 4	Marathon at Balboa, California
July 4, 5	Galveston Island Marathon, Texas
July 4	Peoria, Illinois, Outboard Regatta
July 4	Albany, New York
July 4	Lower Bank, New Jersey
July 4	Cape May, New Jersey
July 9	Chicago, Illinois
July 13	Block Island Cruiser Race
July 13	Booth Bay Harbor, Maine
July 13	Chelsea, New Jersey
July 14	Cruiser Championship, Keystone Yacht Club, Tacony, Pa.
July 19, 20	Second Annual Regatta, Portland, Me.
July 20, 21	Annual Summer Meet, Sheepshead Bay Yacht Club
July 20	Brigantine Beach, New Jersey
July 20, 21	Northwest Championships, Green Lake, Washington
July 23	Augusta, Maine
July 26, 28	Buffalo, New York
July 27, 28	Springfield, Massachusetts
August 2, 3	Newport, Rhode Island
August 3	Mays Landing, New Jersey
August 5	Cranberry Lake, New York
August 5	New Bedford, Massachusetts
August 9, 10	Saranac Lake, New York
August 9, 10	Camden, Maine
August 8	N. Y. Y. C. Cruise starts Morris C...
August 10, 11	Bay Head, New York, 151 Cha... ships
August 11	Santa Barbara, California
August 14, 16	International Races, Royal A... Yacht Club, Belgium
August 16, 17	Miles River, Maryland
August 17	Osterville, Massachusetts
August 17	Westport, New York
August 17	Portland, Maine
August 21	Burlington, Vermont
August 24	Margate, Longport, New Jersey
August 24, 25	Gold Cup Regatta, Red Bank, ... Jersey
August 31	Keystone Yacht Club, Tacony, Pen... vania
August 31	Ocean City, New Jersey
August 31-September 2	Detroit, Michigan, British Internat... Trophy Races
September 2	Third Annual Labor Day Rega... Lake Elsinore, California
September 2	Mullica, New Jersey
September 7-15	Venice, Italy, International M... Boat Regatta
September 8	New England Championships—W... aston, Massachusetts
September 8	Cruiser Championships, Anchor Y... Club, Bristol, Pa.
September 13-14	Washington, D. C.
September 14	Regatta, Riverside and Western ... Y. C., Essington, Pa.
September 14	Mays Landing, New Jersey
September 15	Cruiser Race, Camden Yacht ... Essington, Pa.
September 20	Eastern Division Outboard Champi... ship, Middletown, Conn.
October 4, 5	Eastern Outboard National Champi... ship, Boston, Mass.
October 4, 5	Wilmington, North Carolina
November 11	Santa Barbara Power Boat Club
November 30-Dec. 1	Second Mid-Winter Regatta, La... sinore, California
December 7, 8	San Diego, California

1929 MOTOR BOAT SHOWS

May 4-10	Milwaukee, Wisconsin
May 6-11	Chicago, Illinois
May 6-11	Columbus, Ohio

ENGLISH WOMEN ORGANIZING CLUBS

Miss E. M. Shillan, who is the sister of J. W. Shillan, Elto distributor at London, England, will no doubt be among the shining lights of the English outboard motor boat racers this year. She began racing seriously last season and won two coveted awards through skillful handling of her craft.

In her opinion outboarding is the finest sport in the world for women. Despite the hazard of upsetting and falling in the water, Miss Shillan explains that there is no danger of drowning on account of the life jackets which it is customary to wear.

A little Miss H. Pollard of Gravesend, one of a hundred National racers some weeks ago, took sixth place. A year ago she took fifth and was greatly disappointed in not placing fourth this year. She feels that she could have run faster but was troubled somewhat by the ice in some of the lakes.

Both Miss Pollard and Miss Shillan are members of a woman's outboard club, which is an indication of the extent to which outboard motoring has caught the public fancy of the English.

UNIQUE MOTOR TESTING METHOD

Through the adoption of a successful new block testing method, Chris Smith & Sons Boat Company, manufacturers of Chris-Craft marine motors, have reduced the block testing of the motor to an exact science.

Every Chris-Craft marine motor is given a thorough block test on specially designed stands which hold the motor at exactly the same angle at which it rests when in its hull. Oil pressure, ampere and temperature readings are readily noted under varying speeds. Revolutions per minute are indicated by means of a pull on the scale attached to a movable arm extended from a drum filled with water in which a rotor or propeller revolves.

So far as it is known, this method is exclusive with the makers of Chris-Craft marine motors. It permits a much more thorough test of carburetion and lubrication and reveals oil leaks more quickly than the conventional block test in which the motor is held in a level position.

FINAL HONORS FOR SEA HERO

Funeral services were held a short time ago for Wil... Newstead, who was chief engineer on the 35-foot motor ... Detroit, on its perilous cruise across the Atlantic from New Y... to Queenstown, Ireland, in 1912. Stricken with apoplexy, ... Newstead died suddenly while he was at work at the Charles ... Mueller & Sons Company machine shop at 150 Larned St., W...

Mr. Newstead, who was born 64 years ago at St. Tho... Ont., came to Detroit when he was 13 years old. A ski... marine mechanic, he was employed for years in the operation ... speed boats and yachts on the Detroit River.

His thrilling adventure in 1912 came when he was appo... chief engineer of the Detroit, which had been built for Wi... E. Scripps, then Commodore of the Detroit Motor Boat Cl...

To demonstrate that a small boat powered with a gas... motor could cross the ocean safely, Mr. Scripps and Sir Tho... Fleming Day, editor of a marine publication, decided to send ... Detroit on its long cruise, with Sir Thomas in command.

The Detroit, propelled by a Scripps gasoline motor, brea... heavy seas, but made the crossing in 21 days and 16 hours, rea... ing Queenstown August 7. For 16 days the crew was wit... drinking water, due to the spoiling of the fresh water on boa...

MANUFACTURER SUPPLIES SAMPLES O... OIL WITH ALL RUNABOUTS

As a result of tests conducted by the Horace E. Dodge ... Works, these well-known manufacturers of all mahogany ... abouts have come to the conclusion that Duplex oil provides ... most satisfactory lubricant for the engines powering their ... They find that this oil affords greater smoothness, more ... and extreme freedom from the usual ailments of a marine ... —such as valve grinding and carbon trouble. Accordingly, ... strongly recommend its use to Dodge owners and include ... equipment of every runabout leaving the factory a gallon ... the proper grade of Duplex.